

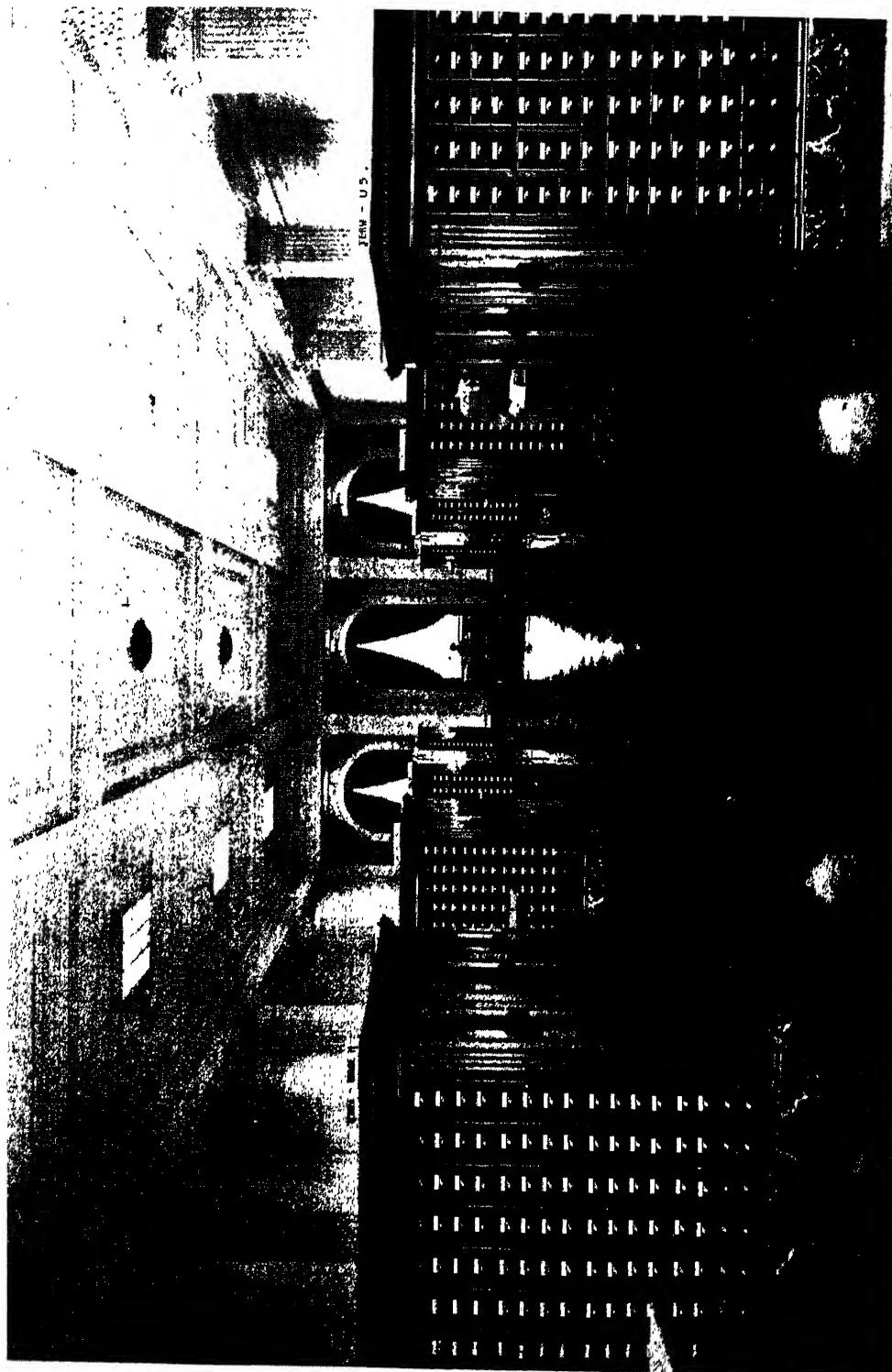
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Union Catalogs in the
United States



Union Catalog, Library of Congress

Union Catalogs in the United States

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MANUFACTURED IN THE UNITED STATES OF AMERICA

to William Warner Bishop

PREFACE

THIS VOLUME ON UNION LIBRARY CATALOGS IN THE UNITED STATES PRESENTS the results of a nationwide survey of all aspects of union cataloging by a group of investigators who have been engaged with the task for more than a year. The aim is to cover the history, current status, and future prospects of various types of union catalogs for American libraries.

A work of this kind could only have been completed with the generous and wholehearted cooperation of many union catalog authorities. It is not practicable to list individually every person to whom acknowledgment for help should be made. The directors and staffs of union catalogs throughout the country facilitated immensely and in numerous ways the activities of the several surveyors. Similar assistance was received from the librarians and catalog department chiefs of over 100 large libraries.

Full credit for the original conception of the study should go to Dr. Robert C. Binkley, whose untimely death in 1940 deprived participants in the study of his invaluable counsel and active aid.

Field work for the project and a part of the publication costs were provided for by a grant from the Carnegie Corporation of New York.

Many useful suggestions in planning the study were received from Dr. Harry M. Lydenberg, Dr. William W. Bishop, and Mr. Paul Vanderbilt.

Messrs. Berthold, Merritt, and Stone, and the editor wish to express their gratitude to Dean Louis R. Wilson of the University of Chicago Graduate Library School for his interest, encouragement, and practical help from the beginning to the end of the enterprise. The Graduate Library School should also be thanked for permitting Mr. Berthold and Mr. Stone to complete for this purpose investigations begun by them under the direction of the School.

Mr. Merritt notes assistance from Maurice Tauber, chief of the Catalog Department, University of Chicago Libraries, in planning his portion of the study, and from Bernard Berelson of the Chicago Graduate Library School, in setting up statistical procedures. Mr. Merritt also acknowledges indebtedness to Dr. Harry M. Lydenberg, Professor Carleton B. Joeckel, Keyes D. Metcalf, and Rudolf Hirsch.

Appreciation should be expressed to Dr. Charles W. David, Chairman, and the Executive Committee of the Philadelphia Union Library Catalogue for

granting Mr. Berthold a leave of absence to participate in the survey. For his union catalog manual, Mr. Berthold secured valuable aid in the form of records and procedures from Eleanor E. Campion, Laura C. Colvin, Ruth E. Schoneman, Rudolph Hirsch, Weldon Kees, and Dr. A. F. Kuhlman.

Some of the most valuable features of Mr. Stone's study of union catalog use were supplied by the careful records kept for him over a period of several years by the Denver Bibliographical Center.

ROBERT B. DOWNS

*New York University
November 1, 1941*

CONTENTS

LIST OF TABLES	xi
LIST OF FIGURES	xv
INTRODUCTION	xviii
PART ONE: <i>The Administrative, Fiscal, and Quantitative Aspects of the Regional Union Catalog—LeRoy C. Merritt</i>	
1. The Regional Union Catalog: General Considerations	3
2. Problems of Organization and Administration	11
3. The Union Catalog: Its Cost	29
4. Resources of American Libraries: A Quantitative Picture	58
5. Regional Union Catalogs: A Pattern for Their Development	97
PART TWO: <i>Regional Union Catalogs: A Study of Services Actual and Potential—John P. Stone</i>	
6. Background of the Problem	129
7. Factors Contributing to the Rise of Regional Union Catalogs	133
8. Volume of Service of Existing Regional Union Catalogs	137
9. Range of Present Services	147
10. Union Catalog Patrons and Their Purposes	176
11. Types and Classes of Material Requested	187
12. Libraries Holding Items for which Locations Have Been Requested	199
13. The Union Catalog in the Bibliographical Center	208
14. Comparison of Regional and National Union Catalog Service	215
15. Summary of Actual and Potential Services of Regional Union Catalogs Compared and Evaluated	218
PART THREE: <i>The National Union Catalog in the Library of Congress—George A. Schwegmann, Jr.</i>	
16. General History	229

17. Project "B"—Administrative Problems	233
18. Compilation—Since Project "B"	247
19. Future Expansion of the Catalog	260
PART FOUR: <i>Manual of Union Catalog Administration—</i>	
Arthur B. Berthold	
20. Preliminary Considerations	267
21. Project Organization	274
22. Mechanics of Compilation	283
23. Administration and Upkeep	300
24. The Bibliographical Center	313
25. Special Aspects and Problems	321
Appendix	326
PART FIVE: <i>Directory of Union Catalogs in the United States—Arthur B. Berthold</i>	
Directory	351
SELECTED BIBLIOGRAPHY	395
INDEX	403

LIST OF TABLES

1.	Sponsors and Regular Full-Time Staff of Seventeen Regional Union Catalogs	16
2.	Relation Between the Number of Libraries Included in a Union Catalog and the Number of Unique Titles Held by Those Libraries	19
3.	Per Cent of Unique Titles Held by Twenty-Three Libraries Included in the Philadelphia Union Catalogue	20
4.	Extent to Which Libraries in the Philadelphia Metropolitan Area Supply Accessions to the Union Library Catalogue	24
5.	Volumes Included in the Philadelphia Union Catalogue for Which Accessions Are Being Regularly Received	25
6.	Classes of Material Excluded by Nine of the Seventeen Regional Union Catalogs	27
7.	Approximate Unit Costs of Compiling Eleven Regional Union Catalogs	32
8.	Proportion of Total Expenditures Expended for Salaries by Six Regional Union Catalogs	33
9.	Proportion of Expenditures for Labor Expended for Supervision by Four Union Catalogs	33
10.	Relation of Supervisory Cost to Total Labor Cost for Each of Nine Operations Involved in Constructing a Typical Regional Union Catalog	35
11.	Cost of Microphotographing Library Catalogs	36
12.	Cost of Typing Cards from Microfilm	37
13.	Cost of Proofreading	37
14.	Summary of Unit Costs Involved in Microphotographic Method of Compiling a Union Catalog	41
15.	Comparative Unit Costs of Compiling a Regional Union Catalog and the Union List of Serials	46
16.	Unit Cost of Producing Additional Catalog Cards	48
17.	Approximate Cost of Filing Cards into Six Library and Union Catalogs	49

18. Comparative Costs of Compiling a Regional Union Catalog of 2,000,000 Locations and 4,640,000 Volumes by the Dexigraph and Microphotographic Methods	51
19. Annual Cost of Maintaining a Regional Union Catalog of 2,000,000 Locations and 4,460,000 Volumes	52
20. Unit Cost of Copying a Regional Union Catalog by the Microfilm and Dexigraph Methods	55
21. Cost of Duplicating a Regional Union Catalog of 1,334,000 Cards by Each of Six Methods	56
22. Relation of Selected Sample to Present and Potential Resources of the Library of Congress Union Catalog	61
23. Titles That 129 Libraries Checked with Basic Sample of 2,445 Titles Drawn from Library of Congress Union Catalog Would Add to the Union Catalog if Their Complete Holdings Were Recorded	63
24. Cumulative Increase in the Library of Congress Union Catalog if the Holdings of Forty-six Members of the Association of Research Libraries Were Recorded in It	68
25. Cumulative Increase in the Library of Congress Union Catalog if the Holdings of Eleven Union Catalogs and Thirty-nine Members of the Association of Research Libraries Were Added to It	70
26. Duplication Between Harvard University Library and New York Public Library	74
27. Duplication among Forty-six Members of the Association of Research Libraries	<i>facing</i>
27. Duplication among Forty-six Members of the Association of Research Libraries	74
28. Relation of Forty-six Members of the Association of Research Libraries to Each Other According to an Index of Distinctiveness	76
29. World Book Production through 1940	79
30. Bibliographies and Library Catalogs Checked with Sample of 3,682 Titles	84
31. Titles in Three National Library Catalogs Held by American Libraries	85
32. Holdings by Six American Libraries of 476 Important Social Science Titles by Country of Publication	86
33. Titles in Three International Bibliographies Held by American Libraries	86
34. Titles in Seven National Bibliographies Held by American Libraries	87

LIST OF TABLES

xiii

35. Titles in Ten Subject Bibliographies Held by American Libraries	88
36. Volumes Per Title in 200 Libraries Included in Five Union Catalogs	90
37. Relation of Unique Titles to Total Locations in Six Regional Union Catalogs	91
38. Relation of Unique Titles to Total Titles in Six Regional Union Catalogs	92
39. Percentage of Books Represented by a Single Copy in Six British Regional Union Catalogs	93
40. Proportion of Duplicate Locations in Six Regional Union Catalogs	93
41. Average Number of Locations for Each Duplicated Title	94
42. Duplication among Twelve Union Catalogs	95
43. Relation of Twelve Union Catalogs to Each Other According to an Index of Distinctiveness	96
44. Regional Distribution of American Library Resources	102
45. Cost of Compiling Sixteen Tentatively Outlined Regional Union Catalogs Including All Libraries in the United States, and the Cost of Compiling Them If Only Research Libraries Are Included	108
46. Relation of Research Libraries to All Libraries in the United States with Respect to Their Size in Volumes, and Their Inclusion in Regional Union Catalogs	118
47. Number of Accessions Received Annually by Three Regional Union Catalogs	122
48. Estimated Annual Cost of Maintaining a National Union Catalog	122
49. Growth in Volume of Union Catalog Service Requests	139
50. Per Cent of Increase Each Six Months over the First Six Months of Service for Each Union Catalog	142
51. Total Requests for Regional Union Catalog Services During 1940	143
52. Rank of Union Catalog Centers in Terms of Library Resources Compared with Volume of Service Requests	145
53. Items for Which Locations Were Requested During 1940	149
54. Per Cent of Items Searched and Found by the Union Catalogs During 1940	151

55. Interlibrary Loans Requested of All Sources by Libraries in Denver Region During 1940 and January 1941	156
56. Number of Days Required to Locate and Secure Material as Interlibrary Loan through the Denver Center, the Library of Congress, and Direct	157
57. Per Cent of Items Found by Each Union Catalog Which Were Located in Five or More Libraries	160
58. Distribution of Interlibrary Loans Requested Direct Compared with Distribution of Those Searched through the Bibliographical Center, Denver, by Twenty-seven Sample Libraries	161
59. Libraries Receiving Largest Number of Interlibrary-Loan Requests of Sample Libraries in Rocky Mountain Region	162
60. Items Searched for Other Regional Union Catalogs During 1940	173
61. Number of Items of Service Requested by Libraries and by Individuals During 1940	176
62. Items of Service Requested by Mail, Telephone, and Personal Application of Four Union Catalogs During 1940	178
63. Classification of Users of the Denver Bibliographical Center Showing Items of Service Requested by Each Group	180
64. Classification of Uses Made of Material Requested by Patrons of Denver Bibliographical Center	183
65. Number and Per Cent of Items Requested by Each Union Catalog by Date of Publication	188
66. Distribution of Requests for Material Published 1936-40	190
67. Subject Classification of Titles Checked with the Cleveland, Columbus, and Denver Union Catalogs	193
68. Libraries Included in Cleveland Regional Union Catalog Scored by Number and Scarcity of Titles Cited in Them	200
69. Libraries Included in the Denver Catalog Scored by Number and Scarcity of Titles Cited in Them	203
70. Libraries Included in Nebraska Union Catalog Scored by Number and Scarcity of Titles Cited in Them	205
71. Non-Location Services Performed by the Denver Bibliographical Center During 1938, 1939, and 1940	208
72. Tools Supplementing the Union Catalog at the Denver Bibliographical Center	210
73. Comparison of Locations Cited by Denver Bibliographical Center and the Union Catalog of the Library of Congress	217

LIST OF FIGURES

1. Per Cent of Unique Titles Held by Twenty-three Libraries Included in the Philadelphia Union Catalog. I	21
2. Per Cent of Unique Titles Held by Twenty-three Libraries Included in the Philadelphia Union Catalog. II	22
3. Regional Union Catalogs Existing in the United States on September 1, 1941	101
4. Depositories for Library of Congress Cards, Including Those Which Have Been Expanded into Depository Union Catalogs and Regional Union Catalogs	103
5. Tentative Pattern of Union Catalog Organization in the United States Showing Areas Covered by Existing Union Catalogs and Possible Location of Regional and Subregional Union Catalogs	105
6. Check Sheet Recording Information Concerning Requests Received at the Bibliographical Center for Research in Denver	138
7. Per Cent of Increase Each Six Months over the First Six Months of Service for Each Union Catalog	141
8. Form Filled Out for Interlibrary Loans Requested by Libraries Cooperating with Bibliographical Center, Denver .	154
9. Percentage Distribution in a Subject Classification of Requests Received by the Cleveland, Columbus, and Denver Union Catalogs	198

INTRODUCTION

THE UNION CATALOG IDEA IS OF CONSIDERABLE ANTIQUITY. BERTHOLD HAS traced it back at least to the fifteenth century. The theory of universal bibliography, i.e., the ability to record and to lay one's hands on all books of all countries and periods, has long exercised a peculiar fascination over the minds of bibliographers. It is true that attempts at realization of the dream have never attained more than partial success. Nevertheless, the aspiration for such a bibliographical utopia persists and is constantly recurring.

In our own day, the first American union catalog, that of the Library of Congress, dates only from the beginning of the present century. The sole specimen in the country of a regional union catalog prior to 1930 was at the California State Library. Several European catalogs are somewhat earlier than these two American examples; at least four were started in the 1880's and 90's. Union lists (especially of periodicals), as distinguished from union catalogs, have been prolific for 70 years or longer. Haskell and Brown in lists compiled for the *Union List of Serials in Libraries of the United States and Canada, 1927-1931*, noted some 240 union lists up to 1931, citing an American example as early as 1876. There has, of course, been no diminution in the output since the Haskell-Brown compilation.

The great impetus for founding union catalogs in the United States came quite recently. The obvious explanation is the sudden availability of a mass of free labor from federal government relief agencies. The result has been the creation within the past decade of a variety of city, county, state, regional, exchange, and subject union catalogs, widely distributed over the nation. Out of the numerous problems which came with the rapid growth of union catalogs arose the need for a comprehensive study of techniques, policies, and future planning.

The present survey of union catalogs originated with the Joint Committee on Materials for Research of the American Council of Learned Societies and the Social Science Research Council. The guiding spirits behind the proposal for such an investigation were Robert C. Binkley and Harry M. Lydenberg. At its meeting on February 11, 1938, the Joint Committee adopted the following resolution:

That the Committee approves in principle of regional union catalogues and

the continued development of the national union catalogue, and sees the need of *a survey of the whole problem of union cataloguing* to guide their establishment within the limits of desirable extension. The survey should provide the data for coordinating regional union catalogues with each other and with the national union catalogue, and should advise whether a union catalogue should be established in one or another region.

Acting upon this resolution, a subcommittee composed of Dr. Binkley and Dr. Lydenberg was set up. The committee was instructed to establish contact with the American Library Association's Board on Resources and to secure advice on the possible appointment of an investigator to make the proposed survey. The subcommittee in its application for financial support outlined the following considerations to demonstrate the value and importance of a study of union catalogs:

1. Experience in Cleveland and Philadelphia in the use of microcopying technique and relief labor has shown it is feasible to construct union catalogues with relief labor.
2. Ideally, it should be possible for a scholar to learn without undue loss of time whether a given book is available in the United States.
3. Cleveland and Philadelphia experience has indicated that an unexpectedly large number of books that are not reported in the national union catalogue from the larger libraries is turning up among the holdings of the smaller libraries. One third of the titles found in Philadelphia libraries, and one fourth of those found in the Cleveland area, prove to be books not so far listed in the union catalogue in Washington.
4. The question of how far union catalog operations should be regionalized and how far centered in Washington, of what principles should be applied in maintaining continuation, of what specific regions are indicated to achieve maximum efficiency without expecting any library to be represented in more than one union catalogue—these are among the specific problems that the survey should yield an answer to.
5. By the use of sampling and statistical procedures, it should be possible to estimate such quantities as the probable total number of titles in the country, the probable percentage of coverage of these titles to be obtained by each of the alternative policies, and estimated cost of each alternative policy in the union cataloguing field.
6. Another investigation closely related has to do with an estimate to be made of the total American library resources in certain sampled fields of scholarship as compared with total world library resources. A few fields should be selected in which very complete bibliographies exist. These bibliographies should be checked sufficiently in existing union catalogs to indicate the percentage of holdings. The estimated factor of uncontrolled resources not listed in any catalogue should then be calculated, to the end that we get some more definite quantitative picture than we have hitherto had of American book resources as compared with world resources.

The subcommittee also pointed out in its memorandum on the subject that,

It must be remembered that the micro-copying technique changes very substantially the place of union cataloguing in librarianship, because it makes it possible for a number of libraries to obtain in micro-copy form copies of the union catalogue of their region or of the national union catalogue. Also, items identified in a union catalogue can be serviced from one library to another in micro-copy form. The union catalogue, moreover, as implemented by this service, may bring about modifications in the acquisition policies of libraries, to the end that there will be less duplication in library holdings, that library resources of the country as a whole will be richer, and that library funds will be more effectively used in the service of scholarship.

In brief, Dr. Binkley and Dr. Lydenberg's recommendations were that the survey should be concerned essentially with inspecting by statistical and sampling methods the contents of union catalogs in order to determine how rapidly new findings diminish, to discover the distribution of titles among libraries, the percentage of the world's literature available somewhere in the United States, the effect of union catalogs on the selection of books in libraries, the uses of union catalogs, and the best form for a union catalog (page, film, microprint, card file, etc.).

Subsequently the plan drawn up by the Binkley-Lydenberg committee was presented to the Carnegie Corporation and in 1940 a grant for the purpose was made by the Corporation to the American Library Association. Responsibility for carrying through the project was placed upon the A.L.A. Board on Resources of American Libraries. The Board since its creation has been concerned with union catalog problems as they pertain to "the effective increase, coordination, geographical distribution, and use of the materials for research and education in American libraries," and in 1936 it sponsored a general conference on the subject in Washington. After rather extended consideration, a decision was made to divide the investigation among four individuals working under direction of the chairman of the Board on Resources. The persons selected were George A. Schwegmann, Director of the Library of Congress Union Catalog; Arthur B. Berthold, Associate Director of the Philadelphia Union Catalogue; John Paul Stone, Librarian of California State College at San Diego; and LeRoy C. Merritt, Librarian, State Teachers College, Farmville, Virginia.

Among them, these four investigators have visited and inspected virtually every union catalog, large or small, in the United States. Their discussions and conclusions are, therefore, based upon firsthand observation and study. No effort has been made by the editor to force the several contributors into a common mold. They have brought varying points of view to the problems

presented, and agreement is not unanimous on every issue—a fact which should add interest and value to the study.

The original plan for the survey was expanded to cover other aspects, in order to secure a comprehensive view of the whole field of union cataloging.

Standing at the summit of our system of union catalogs is the great national union catalog in the Library of Congress. Everyone who has studied the problem seriously is convinced that the maximum development and expansion of this catalog should be the primary objective of any union catalog program for the country. Practical procedures to attain that goal are debatable. Contributions from local and regional union catalogs may be the most effective answer. Such a plan is in fact now being followed successfully in several instances. Nevertheless, since many major collections have not yet been recorded in regional catalogs, contributions direct from individual libraries must continue to be one of the principal sources for building up the national catalog. A new departure is in prospect in New York City where union catalog plans in process call for filing the reproduced cards for a union catalog directly in the Library of Congress union catalog, with no attempt made to maintain a separate file in New York. Mr. Schwegmann, in his discussion, relates something of the national catalog's historical background, its composition, administration, methods of compilation, various uses and the outlook for the catalog's future expansion.

Mr. Merritt has undertaken to deal particularly with the points outlined by Dr. Binkley and Dr. Lydenberg. He has studied by statistical methods the resources of American libraries, the extent of duplication among libraries, holdings of foreign books, and other aspects of the situation. His findings on the probable number of existing book titles in the United States and in the world are an important contribution to our knowledge of this subject and will doubtless cause a sharp scaling down of exaggerated estimates widely accepted in the past. Mr. Merritt has also explored problems of regionalism as they relate to libraries and union catalogs, problems of union catalog compilation and maintenance costs, and problems involved in the theoretical achievement of an all-inclusive national union catalog.

Another investigator, Mr. Stone, has confined himself chiefly to a study of the actual and potential uses of regional union catalogs, including such factors as the volume and range of their service, clientele served, kind of material requested, libraries best equipped to answer requests, and the relation of a union catalog to a bibliographical center. Mr. Stone's study, which has been under way for a considerable period, was begun under the direction of the Graduate Library School, University of Chicago.

Mr. Berthold's two sections were likewise begun under the direction of the Graduate Library School. On the basis of extensive experience, he has

prepared a manual of union catalog administration which should be of great practical assistance both to those already engaged in union catalog work and to those beginning such an enterprise. Mr. Berthold's union catalog directory records every union catalog of any type in the United States about which information could be secured, their scope, and similar pertinent facts, including data on libraries represented.

Are there any general conclusions which can be drawn from the findings of these surveyors? It would be valid to state that for the most part union catalog sponsors have not been particularly concerned with the problem of fitting their catalogs into any kind of national plan, and, consequently, some duplication of effort, questionable regional divisions, and other lack of integration are evident. Want of financial stability is also an unfortunate characteristic of virtually every catalog thus far established. The situation calls for a carefully thought-out program to insure thorough coverage of every portion of the country without needless overlapping and with due consideration to fiscal support. A plan of this nature would necessarily involve a central directing or advisory body. Logical agencies might be the national union catalog in Washington, the A.L.A. Board on Resources, the Library of Congress Division of Library Cooperation, or perhaps some combination of several such organizations. If properly coordinated and developed, union catalogs can be an extremely valuable instrument for facilitating maximum use of each region's resources, and for stimulating the intelligent growth of these resources, but some guidance and direction from a national viewpoint would be highly desirable for the future development of these catalogs.

What of the future form of union catalogs? Should we look toward building up huge files covering all books of all types to be found in a given area, should we expect to develop many smaller special-subject union catalogs, or should our chief objective be to bring the national union catalog to completion without regard to local projects? The answer will depend in considerable measure upon the uses to be made of the catalogs. If they are to serve principally the specialist and the scholar, subject union catalogs may be most desirable and least costly. On the other hand, for the serious general reader, for research in all fields, and for service to the community as a whole, the more inclusive catalog is indicated. To assist programs of library cooperation—specialization of collecting interests, interlibrary loans, cooperative purchasing, etc.—the broader base is also essential.

The question relating to the national union catalog has at least two important aspects: first, the national catalog should by all means receive priority for information concerning every unusual book in the United States, though it may be futile to duplicate entries there for thousands of titles useful in the local catalog; and, second, the need for a local or regional union catalog

varies in direct ratio to the distance from Washington. Because of time and transportation factors, a union catalog for the Southwest or the Pacific Northwest, for example, is far more vital than for those states in close proximity to the national catalog. That we are far from the goal of a complete record in the national union catalog of all books in American libraries is strikingly demonstrated in Mr. Merritt's figures, which show about 4,000,000 titles thus far lacking. His findings are supported by a recent statement from Douglas C. McMurtrie that the American Imprints Inventory has revealed as high as 90 per cent of early imprints from the Western states that have not been recorded in Washington.

The union catalog is one of the most spectacular forms of library cooperation. It appears to solve many perplexing problems facing libraries in the past. Its practical aid in the acquisition, control and mobility of books accounts for the amazing growth in the last decade of the union catalog movement. Few would contend that bibliographical centers and union catalogs will, unaided, create a library millennium. Nevertheless, the potentialities of the scheme are immense. The writers of the present volume have undertaken to examine and analyze some of these possibilities, trying objectively to recognize both the strength and the limitations of the union catalog idea. It is hoped the results will be of genuine value to everyone confronted with the planning, administration, or use of union catalogs.

PART ONE

The Administrative, Fiscal, and
Quantitative Aspects of the
Regional Union Catalog

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CHAPTER I: *The Regional Union Catalog: General Considerations*

THE GROWTH OF UNION CATALOGS IN THE UNITED STATES RESEMBLES NOTHING so much as the now famous Topsy, who, innocent of all raising, "just grew." Union catalogs, too, have just grown—little or no attention has been given to the planning of their location; and their growth in size, function, and variety has gone on with so little serious attention from the library profession that it is today quite possible for five librarians to entertain five different and almost mutually exclusive connotations for the phrase "union catalog." The most common of these undoubtedly has reference to the now well-known and widely distributed depository sets of the Library of Congress catalog, into many of which cards from other libraries have been filed to form a union catalog. Hardly less commonly referred to as union catalogs are the many central catalogs of whole library systems maintained in the main library to show the location of books in all parts of a city or campus. More recently the term "union catalog" has been understood to mean the strictly regional union catalogs that are the subject of this study. The term also has reference to a variety of special-subject union catalogs giving locations in two or more libraries. Although the present study is devoted almost exclusively to only one of these connotations, its differentiation from the others will necessitate a brief historical summary of the union catalog idea and its actual manifestations, the formulation of an all-inclusive general definition, and specific identification of the several types of union catalogs known in America today.

It seems hardly necessary to define the word "catalog" itself, but it should be recorded that it is derived from the Greek verb "katalegein" and its noun "katalogos" which simply means "list." Applying the term to libraries one finds that catalogs are tools that list the contents of the libraries they are intended to serve. These tools may be in book form, in card or sheaf form, or even in microfilm form. The purpose of these tools as indicated by modern standards is: "to describe each item in a collection completely enough to enable the user to select successfully reading matter, either according to main entry, added entry, subject matter, geographical, chronological or form interest."¹ The addition of the prefix "union" to the term "catalog" indi-

¹ Rudolf Hirsch, in a talk to New Jersey College for Women, Library School, April 30, 1941.

cates a joining together of two or more catalogs, forming a catalog of more than one library, whose purpose is the same as that of the catalog of an individual library with the extended function of describing each item in a number of collections and indicating in which collection or collections the item is to be found. Although the union catalog is usually a main-entry catalog, it may take other forms as well. Subject union catalogs are not unknown, and examples also exist of union catalogs in geographical and chronological form. The union catalog is distinguished from the bibliography with locations by the fact that it is concerned with the entire resources of the libraries it includes, while the bibliography is concerned only with locating copies of the items included therein. It is true that a union catalog may be limited in scope to a certain subject or a certain period, but within its limitations it strives to record all items held by its constituent libraries. There is also a suggestion of finality about a bibliography, which the union catalog never hopes to attain, for the catalog's objective involves the continuous and cumulative recording of the items in its several libraries, taking care to cancel the entries for withdrawn books as well as to add the entries for newly acquired works.

Some differentiation must also be made between the union catalog and the union list, a phenomenon whose function is very similar to the union catalog, but which is usually more limited in scope. The union list is, for example, usually published, whereas the union catalog is not. This accident of format would not be important except for the fact that it imparts to the union list a finality comparable to that of a bibliography, whereas the objective of the unpublished union catalog involves a factor of currency that the published union list cannot hope to achieve. This does not mean that the *Deutscher Gesamtkatalog*, for example, is any less a union catalog for having been published, for the records on which the *Gesamtkatalog* is based are being maintained as a current union catalog, but it does indicate that *Incunabula in American Libraries*,² for example, is a closed work as of its publication in 1940, and is therefore more characteristically a union list than a union catalog. The records on which it is based are, of course, being preserved, but new and additional material is not being actively accumulated, and material that is received is not being currently recorded in the basic file.

The differences between these two works suggest another criterion which usually distinguishes the union catalog from the union list. The objective of the *Gesamtkatalog* is to list all works held by its participating libraries at the time of going to press, whereas *Incunabula in American Libraries* aims to list merely those works printed before 1500 that exist in the libraries of America. It lists the complete holdings of no library, except perhaps those

²Edited by Margaret B. Stillwell and published in 1940 by The Bibliographical Society of America.

of the Annmary Brown Memorial itself, which is limited to incunabula. The fundamental criterion may now be suggested as being rather one of purpose and function than of accidents of format or inclusiveness. The union list, like the bibliography, is interested in a certain class of material and in the places in which those materials are available, whereas the union catalog is concerned with the resources of a group of libraries. This concern may be with the whole resources as is the case with the Philadelphia Union Catalogue, or it may be with their resources in a certain special field or form of material, such as the Union Catalog of Art in Chicago, or the Union Catalog of Serials in Charleston.

A union catalog, then, may be said to be a list, usually unpublished and usually on cards, limited or unlimited in scope, of the cataloged resources of two or more libraries. It is never complete or finished, but endeavors to reflect at any moment the actual holdings of its constituent libraries.

In the course of tracing the history of "The Union Catalog Idea"³ Berthold has found that the regional union catalog was first advocated in 1651 by Gerard Langbaine, Provost of Queen's College, Oxford, and Keeper of the University Archives. Langbaine's plan called for the compilation of a complete catalog of the Oxford library and the incorporation in it of "all the authors in any of our private College Libraries, which are wanting in the Publick Library of Oxford, so as he that desires to know, may see at one view, what we have upon any subject."⁴ There is some question whether this scheme was not more nearly comparable to a central catalog in a university library of the collections in its several schools, rather than to a regional union catalog as we understand it today. The plan was, however, never carried out, and we must look to a much more recent time for the first manifestation of a strictly regional union catalog.

If the term "regional" is understood to include regions of all sizes, including those which are merely local, the credit for compiling the first regional union catalog must go to the town of Zurich in Switzerland, whose libraries joined in compiling a union catalog in 1900. This union catalog now⁵ includes over 20 of the chief libraries in the town, and has, since 1928, when the national union catalog of Switzerland was begun in Berne, contributed titles for all of its constituent libraries to the national union catalog. Similar union catalogs have been compiled in Geneva and in Neuchatel, both of which are also included in the national union catalog in Berne. These three regional union catalogs contribute entries for 95 of the 118 libraries included

³ Arthur H. Berthold, "The Union Catalog Idea," in William M. Randall, ed., *The Acquisition and Cataloging of Books* (Chicago: University of Chicago Press, 1940), p.239-56.

⁴ Quoted by Berthold, *ibid.*, p.241.

⁵ 1985, the date that Pafford's *Library Cooperation in Europe*, from which this information is drawn, was published.

in the national catalog, and materially lessen the burden of incorporating entries at the national level.

A similar and much more extended system of regional union catalogs has been developed in Great Britain, where nine regional library systems are now cooperating with the National Central Library in making virtually all books in England available to the readers of every public library. The system had its beginning in 1927 in Cornwall and quickly spread over all England so that by 1937 all of the nine regional systems were in operation. With the exception of the Yorkshire system, which for special reasons has not yet undertaken a union catalog, all of the regional systems have compiled union catalogs in sheaf form.⁶ The catalog is made in several copies, one of them remaining in the regional center to serve as the union catalog of the region, and one being sent to the National Central Library for use in locating books that are not otherwise available to it. The several regional catalogs are maintained as units in the National Central Library, no attempt having as yet been made to interfile them into one general union catalog for all of England. Nevertheless the system is truly a national one. Local libraries send their requests to their own regional headquarters. If the book is not found in the region, it is referred directly to the National Central Library which then seeks to locate it in its own collection, in its union catalog of the cooperating outlier libraries, and in the union catalogs of the other regions.

Other early regional union cataloging activity in Europe for the most part took the form of union lists of the accessions of a group of libraries in a particular locality, and no other examples of permanently located and currently maintained regional union catalogs can be cited. A possible exception is the Prussian Union Catalog during the early portion of its history. Originally planned to include the holdings of important libraries all over Germany, its scope was limited in 1895 to the 10 state university libraries in Prussia. The emphasis was still nationalistic, however, and no plans were made to compile comparable union catalogs for other regions or states in Germany. This nationalistic influence became more apparent in 1936, when the scope of the catalog was enlarged to include libraries in all parts of Germany, and the present status of the *Deutscher Gesamtkatalog* is that of a national union catalog.

Although regional union catalogs apparently did not make their appearance until the beginning of the present century, quite a number of regional union lists were compiled and used before the year 1900. The first of those to which a definite date can be attributed was published in Milan in 1859 and lists the journals and other periodicals in the public institutions of Milan in that year. Several other similar efforts appeared in Europe before the first

⁶ For a detailed description of the procedure involved in compiling a sheaf catalog, see J. H. P. Pafford, *Library Cooperation in Europe* (London: The Library Association, 1935), p. 97-98.

American regional union list of current periodicals was published in Baltimore in 1876,⁷ and it was not until 1892 that the first American regional union list of serials showing actual files held was published in California.⁸ When Josephson published his list of union lists of periodicals in 1899,⁹ he was able to find 25 such lists which had been published since 1864. This number had grown to 178 by the time Haskell¹⁰ revised this bibliography for the *Union List of Serials* in 1927. Since 69 more union lists were found by the time Karl Brown published a supplementary bibliography in 1931,¹¹ it seems safe to assume that the number has probably doubled since 1927, and it is hoped that the new edition of the *Union List of Serials* will provide us with a new bibliography of union lists now extant.

It is interesting and not without its peculiar significance that the first regional union catalog to be established in the United States grew out of a union list of serials that had been found inadequate. The union catalog of periodical holdings begun in the California State Library in 1909¹² soon became more characteristically a union list, for it was not consistently kept up-to-date, but its status as a union catalog was reinforced by the filing of cards for book titles received from the newly established county libraries. The acquisition of a Library of Congress depository catalog in 1914 gave impetus to the slowly growing union catalog. Today it is both a regional union catalog for the public and county libraries of California, and also a Library of Congress depository union catalog, since it contains the printed cards of quite a number of other libraries, including the mimeographed cards issued by the University of California and Stanford University libraries.

This California regional union catalog remained alone in its field until the establishment of the union catalog of the Libraries of the Oregon State System of Higher Education in 1932, and it was not until 1934 that a fully developed regional union catalog having the objective of covering its region completely, made its appearance in Nassau County, Long Island. Two other regional union catalogs were begun in 1934, and all of the remaining 13 regional union catalogs shown on the map in Figure 3 were begun after that

⁷ Check List of Periodicals, Taken at the . . . 8 Institutes in the City of Baltimore, Baltimore, 1876 (Johns Hopkins University, Official Circulars, No.6).

⁸ Cooperative List of Periodical Literature, Supplement to the Secretary's Report to the Board of Regents of the University of California, 1892, Berkeley, California, 1892 (Library Bulletin No.1, 2d ed.).

⁹ A. G. S. Josephson, *A Bibliography of Union Lists of Periodicals (1864-1899)* (Chicago: American Library Association, 1899, Reprint).

¹⁰ Daniel C. Haskell, "A Bibliography of Union Lists of Serials," in Winifred Gregory, ed., *Union List of Serials in Libraries of the United States and Canada* (New York: H. W. Wilson Co., 1927), p.1581-88.

¹¹ Karl Brown, "A Bibliography of Union Lists of Serials," in *Union List of Serials—Supplement, January 1925-June 1931* (New York: H. W. Wilson Co., 1931), p.657-60.

¹² M. R. Gillis, "The Union Catalog and the Newspaper Index as Means of Increasing Reference Resources of the State Library," in National Association of State Libraries, *Proceedings and Papers (1930-1931)*, p.27-30.

year. To the WPA and its several predecessors must go the major credit for this rapid development, for it is highly improbable that so many of the catalogs would have been begun without its very material assistance, or that private benefactions would have been so readily forthcoming if the promise of supplementary funds had not existed.

Although the first regional subject union catalog did not come into being until 1921, the development of these limited union catalogs roughly parallels that of the general union catalogs. The Union Catalog of Texas and Southwestern History begun in 1921 was followed eight years later by the Union Catalog of American History in Lexington, Kentucky; all of the other 22 local and regional subject union catalogs had their beginning in the 30's, with the exception of the Union Catalog of Art in Chicago which was begun in 1940. These union catalogs are not subject catalogs in the ordinary sense in which a library is said to have a subject catalog, but are, rather, author catalogs whose entries are restricted to works on a particular subject. The special subjects for which union catalogs have been compiled cover a wide range, as is apparent in Berthold's Directory. One of the more usual subjects has been the local history of the region covered by the catalog, exemplified by the Union Catalog of Floridiana or the Union Catalog of Pacific Northwest Americana. Of equal interest in numerical terms have been union catalogs of books concerning art, revealing a not unpractical solution to the problems created by the coincidence of high prices of art books and limited library budgets. Although these specialized union catalogs are important for workers in their respective fields, they are at best mere substitutes for general union catalogs. They offer no real subject approach to their fields, and the titles represented in them would be just as available were they filed in a general union catalog.

Three attempts to achieve a real subject approach should be noted. Two of them are located in Chicago, and the third in New York City. The Dance Bibliography in the Fifty-eighth Street branch of the New York Public Library is perhaps more aptly described as a bibliography than a union catalog, since in all probability the work of compilation will come to a close without benefit of provision for keeping it current. At the present time, however, this union catalog on the art of the dance is filed according to a complete set of subject headings for all phases of the field, and locations in 12 New York libraries are given throughout the catalog.

The Union Catalog of Law Libraries in Chicago,¹⁸ begun first as an author catalog, has now been supplemented by a complete subject catalog, the subject headings having been drawn from the tracings used by the four participating libraries. Editorial difficulties involved in reconciling variant

¹⁸ W. L. King, "Chicago Union Catalogue of Law Books," *Chicago Bar Record*, XXI (May 1940), 303-04.

practices among the four libraries were immeasurably more difficult than the editorial problems of editing an author catalog—a situation that suggests the near impossibility of successfully completing a similar project for a general union catalog involving the score or more of different subject-heading practices of a score or more of participating libraries. The sponsors of the Union Catalog of Jewish Literature are compiling what will be more a subject index to the union catalog than an actual subject union catalog. Duplicate main entries will be filed in the several relevant places in the subject catalog, but locations will be given only in the union catalog itself.

Along with the general development of general and specialized regional union catalogs during this century has gone the development of a few national union catalogs, the most important of which is the Union Catalog in the Library of Congress, described in detail by its Director in another portion of this report. Except for the Library of Congress itself, this catalog records the complete holdings of no large libraries, its objective having been to include entries for only the more important research material in libraries the country over. The definition of the term "important" was largely left to the contributing libraries, and the accessions to the union catalog, numbering 340,901 during the fiscal year ending June 30, 1940, are still largely confined to the cards furnished by those libraries which print or process cards for their own catalogs. That this mechanical definition of the word "important" to mean those works for which Library of Congress cards were not available at the time of cataloging is inadequate is shown by the fact that the Union Catalog is able to furnish locations for only 48 per cent of the items it is called upon to search. This percentage has been rising slowly and steadily during recent years, particularly due to the incorporation of the complete catalogs of special collections and of a few important libraries into the union catalog. Progress has, however, been too slow, and it is becoming increasingly imperative that some supplementary methods be adopted if the union catalog is to achieve a more nearly perfect record in locating books that are in demand. A beginning in developing such methods has been made by two of the regional union catalogs. Since May 1937, when the editing was well under way, the Philadelphia union catalog has been sending successive trays to the Union Catalog in the Library of Congress for checking, and it has been the policy of the Providence union catalog to send cards to the Union Catalog in Washington for all titles for which Library of Congress cards have not been printed. These two examples represent efforts in the right direction, and should be expanded and accelerated into a comprehensive plan for developing the resources of the national union catalog through and with the assistance of all the regional union catalogs now in existence, together with the cooperation of those major libraries whose complete holdings are not yet embodied in a regional union catalog.

One other national union catalog exists in the American Imprints Catalog in Chicago.¹⁴ Its arrangement by place and date is not conducive to the location of particular bibliographical items unless these two data are known, but this difficulty is being remedied as quickly as the catalog is edited by the incorporation of its material in the Library of Congress Union Catalog.

In a certain sense the 31 Library of Congress depository union catalogs are national union catalogs also, since they do show the location of certain works in libraries all over the United States. But the definition developed above excludes them from full status as union catalogs, for they do not show the entire resources of two or more libraries. Their function is bibliographical rather than descriptive of resources, and the casual manner in which cards other than those from the Library of Congress are received is inimical to any estimation of strength or weakness in a particular library. These depository catalogs are important bibliographical tools for the libraries that possess them and for other libraries in close geographical proximity; their usefulness to a wider circle of libraries in their regions can be expanded greatly by the development of bibliographical centers about them, and perhaps in a few cases by their conversion into regional union catalogs.

¹⁴ Douglas C. McMurtrie has written a good description of this project under the title, "A Nationwide Inventory of American Imprints Under WPA Auspices," in A. F. Kuhlman, ed., *Public Documents with Archives and Libraries* (Chicago: American Library Association, 1938) p.301-16.

CHAPTER 2: *Problems of Organization and Administration*

ALTHOUGH SPECIFIC INDICATIONS OF PROPER ORGANIZATIONAL PATTERNS AND administrative procedures are given in much greater detail in the manual which forms Section 4 of this report, certain problems involved in setting up and operating a regional union catalog are of sufficient importance to warrant more general and theoretical treatment apart from the manual. That the success of an administrative undertaking is in a considerable measure dependent on the efficiency and applicability of its organizational structure is by now an almost patent fact to specialists in management. Certain administrative jobs are best performed by certain types of organizations, staffed by certain well-defined kinds of personnel, and operated under custom-made rules of procedure. The compilation and maintenance of a union catalog is first and foremost an administrative job and as such demands an administrative organization that is properly constructed to carry out the job in an efficient and forthright manner. Not all union catalogs have had the advantage of such an organization. A good many of their shortcomings can be traced to this difficulty, and it therefore seems important to examine the various patterns of organization that have served in the compilation of regional union catalogs.

It should be noted at the beginning that comparatively few of the regional union catalogs existing in the United States today made any attempt at all toward a formal administrative organization. The several organizational patterns described below are far from typical and represent for the most part a mere description of a particular organization. Even where a form of organization does exist, it is apt to be loose and informal in character, with few specifically defined obligations and responsibilities.

Such is the situation in Denver, where the Bibliographical Center for Research—Rocky Mountain Region, was informally organized in 1935. The organization was effected by an organizing committee of four administrative officers of interested institutions. This organizing committee was expanded into a general committee consisting of one representative from each of the cooperating institutions, this representative being selected by the head of the institution. The general committee serves in an advisory capacity and meets "occasionally to consider questions of a general nature." An executive

committee is chosen from this general committee, and meets monthly to consider and decide on all problems concerning the Center that are brought before it by its chairman. The chairman is in direct charge of the administration of the Center during the interim between meetings. The Center has retained a permanent full-time director who is in administrative charge of the union catalog and who consults freely with the chairman of the organization. Papers of incorporation were drawn up at the time the Center was organized in 1935, but since they have not yet been filed, the Bibliographical Center for Research is still a very informal organization with no legal status. Loose as it is, this organization has enabled the union catalog and Bibliographical Center to develop independently of the Denver Public Library, in which it is housed. The director has been free to work out policies and procedures for the union catalog with reference to the needs of the region as a whole, without giving special consideration to the Denver library, except in terms of its regional service. To say this happy set of circumstances is entirely due to the separate organization of the union catalog would be to attribute too much importance to a mere formal structure. Personalities existing within any structure are of prime importance, and it can only be said that the personalities in the Rocky Mountain Region, and more particularly in the Denver Public Library, worked out this form of organization and made its successful operation possible.

The organization of the Union Library Catalogue of the Philadelphia Metropolitan Area is in many ways similar to that of the Denver Bibliographical Center. Agitation for the union catalog was begun by a small group of Philadelphia historians in 1933 who sought some solution to the difficulties of locating research materials in a city which is rich in library resources scattered in more than 100 libraries. Nothing was actively done until 1935 when the impending availability of WPA funds made it seem wise to go ahead with a formal and legally established organization to handle the private contributions which had already been received, as well as the WPA appropriations that were in prospect. The corporation that is the Union Library Catalogue began its existence on January 10, 1936, and the first meeting of the organization was held on January 16, when a board of directors was elected. "It was the intention to make the board of directors fairly representative of good citizenship, of the library profession, of the administrations of institutions of higher learning, and of the professions of teaching and research in varied fields."¹ The administration of the corporation and of the union catalog was placed in the hands of an executive committee of six members who meet periodically, usually about once a month. The actual administration of the catalog was and is handled by a salaried

¹ Union Library Catalogue of the Philadelphia Metropolitan Area, "Interim Report of Progress" (n.p., 1936), p.1.

superintendent who is now known as director of operations.

Although an attempt was made to get a representative body of librarians and scholars on the board of directors, the corporation does not actually include a representative from each of the libraries included in the union catalog. The resulting organization is somewhat less democratic than the more loosely formulated sponsoring committee in Colorado, but the advantages of a legally constituted entity have been many. The most important of these has perhaps been the ability to raise funds for the catalog, although here too the presence of effective personalities must not be overlooked. The Philadelphia Union Catalogue was, at its beginning, completely segregated from any previously existing library organization. The compilation of the catalog was begun in space furnished by the Philadelphia Commercial Museum and the Historical Society of Pennsylvania, and although it is now located on the campus of the University of Pennsylvania, it is still entirely without the jurisdiction of any particular library. This basic corporate organization of the union catalog has not changed during the six years of its existence, even though certain agreements have been made by the union catalog with other organizations. The first of these was the creation of the Bibliographical Planning Committee by joint action of the Union Library Catalogue and the University of Pennsylvania. This committee was set up to study the bibliographic resources of the city of Philadelphia, and out of its activity came the recommendation for the creation of the Philadelphia Bibliographical Center, later created under the joint jurisdiction of the Union Library Catalogue and the Bibliographical Planning Committee. It is this organization which is now operating the union catalog in addition to its other activities directed toward the creation of a bibliographic center. The Union Library Catalogue has, however, retained its corporate status and will go on functioning independently in the event that the newly formed Philadelphia Bibliographical Center and Union Library Catalogue goes out of existence.

Two other instances of union catalog organization may be cited, both of them in New York State, and both of them in the form of a county library association. In Westchester County the library association already existed, and the union catalog was undertaken as a special project of the Westchester Library Association, and as a direct result of a survey of Westchester County libraries, published in 1935.² Active administration of the project was placed in the hands of the president of the association; and association funds, as well as special contributions from most of the member libraries, were used to compile the catalog and are now being used to maintain it. The catalog remains independent of any particular library, even to the extent of being housed in the county office building in rented quarters.

² Edward A. Wight and Leon Carnovsky, *Library Service in a Suburban Area* (Chicago: American Library Association, 1936), p.129.

In Nassau County the library association was formed for the specific purpose of compiling the union catalog. Its membership is limited to libraries contributing to the union catalog and fluctuates as libraries are added to the union catalog or as libraries cease making regular contributions. In this instance the catalog is housed in the largest library in the county; and although the contributing libraries participate in the support of the union catalog through their association membership, it is quite evident that the Hempstead Public Library is contributing more than its proportionate share of the expense of operating the catalog. Although the sponsorship of these two union catalogs is very similar, they are dissimilar in their operation. The very fact that it was possible to locate the Westchester County Union Catalog in a county office building has made it an independent organization that has its own staff which gives impartial service to all the libraries in the county. Similarly, the fact that it was necessary to locate the Nassau County Union Catalog in the Hempstead Public Library has placed an undue burden on that library and has resulted in a union catalog which is necessarily deficient in staff, equipment, and service. This is not written in criticism of the Hempstead library, which is doing more than its share in maintaining the catalog, but merely points to the fact that a union catalog placed in an existing library and serviced by the regular library staff inevitably becomes a burden to that staff at the same time that it receives less attention than it needs.

Almost any one of the remaining 13 regional union catalogs might be used as a typical example of what may be expected to happen when a regional union catalog is compiled by and maintained by a library whose first responsibility is to a much more limited clientele. There are exceptions, of course, and some of these will be mentioned below, but in general it is the natural bent of librarians to expect to maintain a union catalog with the least possible staff and with the least interference with the normal activity of their existing library organizations. This is again not written in criticism of these librarians, but in criticism of the form of organization that makes possible the following of this usual line of least resistance.

Even so, the sponsorship of a union catalog by a particular library has its advantages. In order to give adequate and effective service, it is necessary for the union catalog staff to have at hand a good working collection of subject and trade bibliographies, of encyclopedias, dictionaries, and other reference works, as well as a specially trained personnel. All of these are expensive. A minimum bibliographic collection would cost not less than \$10,000, and a good reference collection at least as much; and few union catalogs in their present state of development would be able to afford the service of a competent administrator, a competent bibliographer, and a competent reference librarian. Few indeed are the union catalogs that have succeeded in retain-

ing even one of these three necessary and usually distinct types of personnel. If the union catalog is situated in an already functioning library, all of these material and personnel resources are available without additional cost, and the union catalog is able to give bibliographic and reference service comparable in quality to that afforded by the library itself. This is a distinct advantage and must always weigh heavily when the decision concerning the location of the union catalog is made.

Under this form of organization, however, the union catalog cannot rightly expect to receive from its parent library more than the minimum amount of service that it is able to demand on the basis of day-to-day needs. Larger and less pressing problems, such as increasing the general bibliographic competence of the union catalog, or working out more general and ambitious plans for expanding the reference service, will receive little or no attention from a library staff which is otherwise occupied with its purely local problems. The union catalog is apt to become a mere adjunct of one or more existing departments, a convenient thing to have around in the sponsoring library, but a nuisance that must not be allowed to take more than a minimum amount of time. It seems significant that the only union catalogs which made any progress in studying the resources of their regions and in working out detailed and specific plans for cooperation among their participating libraries are those two which have maintained almost complete independence of any existing library organization. It seems to be true that an independent organization is able to secure more funds for its support and operation than the same activity can secure when it is part of a larger unit. The Librarian of Congress has often maintained that he was able to obtain generous appropriations for the Library only because it was an independent organization under Congress itself, and that if the national library had been a part of the executive branch of the government, it would not be the great library it is today.⁸ Similarly, the Librarian of the Army Medical Library is of the opinion that his library could not have risen to its present leadership in the field had it been a part of the Library of Congress. It would be useless to labor the point unduly, for it is doubtful whether the union catalog idea is as yet sufficiently well established to command the kind of budget that a strong organization would need, but there can be no doubt that a union catalog which is to fulfill its complete responsibility of identifying, studying, and developing resources of a particular group of libraries must have a competent, well-paid staff of its own, whether it is organizationally an independent unit or a subsidiary unit of a larger organization.

Nevertheless the typical American pattern is one of identification with a parent library, and even the four union catalogs that have so far escaped such

⁸ This position is reviewed by Dr. Putnam: "The Future of the Library of Congress," in Emily Miller Danton, ed., *The Library of Tomorrow* (Chicago: American Library Association, 1939), p.187.

identification are by no means completely assured of their continued independent existence. The 17 regional union catalogs here under consideration are listed in Table 1, together with information as to their organizational status and the size of their staffs. The picture is not an encouraging one. Of the four catalogs that are at present more or less independent, only that of Westchester County seems to be reasonably assured of continued independent existence. The Pacific Northwest Union Catalog now in compilation and nominally sponsored by the Bibliographical Committee of the Pacific Northwest Library Association will in all likelihood become a tool of the reference and cataloging departments of the University of Washington Library, since no provision for maintaining the catalog has been made by the Association. The union catalog in Denver is now in the throes of obtaining regional financial support. Some funds are seemingly forthcoming, and

TABLE I
SPONSORS AND REGULAR FULL-TIME STAFF OF
SEVENTEEN REGIONAL UNION CATALOGS

Catalog	Sponsor	Regular Full-Time Staff
1. Cleveland	Western Reserve University Library	1
2. Philadelphia	Union Library Catalogue of the Philadelphia Metropolitan Area	5
3. Ohio	Ohio State Library	1
4. Pacific Northwest	Pacific Northwest Library Association	1
5. California	California State Library	None
6. Providence	Brown University Library	None
7. Nebraska	Nebraska Free Library Commission	None
8. Denver	Bibliographical Center for Research of the Rocky Mountain Region	1
9. Vermont	Vermont Free Library Commission	None*
10. Georgia	6 Atlanta and Athens Libraries	None*
11. Nashville	3 Nashville Libraries	None
12. North Carolina	University of North Carolina	None
13. Westchester County	Westchester Library Association	1
14. Oregon	Oregon State System of Higher Education	1
15. Nassau County	Nassau County Library Association	None
16. New Hampshire	New Hampshire State Library	None
17. New Jersey	New Jersey Free Public Library Commission	None*

*The compilation of these catalogs is not yet complete, and no service staff has been organized.

the catalog will probably retain its independent status for at least another year, but should regional and foundation support fail, there is little doubt but that the union catalog would be absorbed by the Denver Public Library. The same possibility exists for the Union Library Catalogue of the Philadelphia Metropolitan Area, even though its independent corporate status

seemingly embodies a hope and a possibility that it may remain actually, as well as nominally, independent of the University of Pennsylvania Library.

The mere routine of maintaining a union catalog and the mere routine of locating items therein can undoubtedly be carried well enough by the regular staff of a large library, with the addition of some minor clerical assistance. As such the union catalog is useful to those persons and librarians in the region who are interested in locating certain books for which they have need. Such use of the union catalog is valuable, to be sure, but it leaves entirely untouched enormous possibilities which can be exploited only by an independent staff whose full responsibilities lie in the development of the union catalog as an instrument of effective library cooperation.

THE UNION CATALOG: ITS INCLUSIVENESS

The definition of a regional union catalog developed in Chapter I would indicate that it should include all of the libraries within the area to be covered. This has indeed been the normal American practice, for 10 of the 17 regional union catalogs have tried to include all of the libraries within their respective regions. The exceptions are notable, not because of a specific decision to follow another policy, but because of special circumstances which more or less naturally dictate another arrangement. In Oregon, for example, the union catalog is limited to those institutions of higher education that are members of the Oregon State System. Since the union catalog was planned at least in part as a tool to facilitate central ordering, there was no necessity for including other than the six libraries in the state system. In New Jersey and California the union catalogs are for the most part limited to the county libraries which are more or less directly related to the state library extension agencies. Some public libraries, and in California some university libraries, have indeed been included to a certain extent, but there was no concerted planning in this direction. In Nashville and North Carolina the union catalogs were planned as instruments for working out cooperation between specific institutions; libraries not included in the cooperative plan were naturally not included in the union catalog. Other libraries are now being added to the North Carolina catalog; the possibility of doing so in Nashville is still open. The situation in Cleveland and in Columbus is somewhat more difficult. The Cleveland Union Catalog does indeed aim to include all of the libraries in Metropolitan Cleveland, but it also includes the libraries of certain institutions of higher education throughout Ohio. The union catalog in Columbus aims to include all of the public libraries in Ohio, including those Cleveland public libraries that are also included in the Cleveland Union Catalog. It has, in addition, included certain special libraries, particularly in Cincinnati. The regional picture is fairly clear so far as the Cleveland coverage of the Cleveland Union Catalog is concerned, but it

becomes confused when extended beyond the Cleveland vicinity to the State of Ohio. This situation is the only instance where two union catalogs overlap in the area they cover, an overlap which causes a good deal of inefficiency in the compilation of the catalogs, in their maintenance, and in their service. This condition is readily seen when, comparing the catalogs card for card, it is found that 42.9 per cent of the titles in the Cleveland Union Catalog are also in the Ohio Union Catalog, and that 69.2 per cent of the titles in the Ohio Union Catalog are also in the Cleveland Union Catalog. The situation is more than a little anomalous, and the expense of maintaining two union catalogs approximately equal in size, in which 36 per cent of the total cards in both catalogs are in duplicate, would seem to point to a consolidation of the two catalogs, even at this late date.

The very concept of a regional union catalog points to the desire to know what books are available within a limited geographical region, and for this reason alone it is important that all of the libraries in the region be included. Even though a good many of the smaller libraries will almost entirely duplicate the holdings of the larger libraries, it is important for the planning of library cooperation to know the extent to which certain books and classes of books are duplicated. Knowing that one copy of a book exists within a region is important to be sure, but the knowledge that two, or even ten or twenty copies of a book exist within the region also has its peculiar importance when the development of regional library resources is being planned. If only one copy is available, it may be necessary to preserve that copy at all costs, or to secure other copies. If, however, it is known that 10 or 20 copies are available, any one or two or three of those copies may be discarded without loss to the region.

There are, however, certain other criteria for the inclusion of libraries in union catalogs that have a good deal of weight. One of these involves the peculiar resources of the participating libraries, the general argument being that there is no point in including the small general library whose entire collection will be held by other libraries. It is thought that a preliminary survey of resources of libraries within a region would reveal just which libraries or collections are important enough to warrant inclusion in the union catalog. Such a survey will, of course, turn up the more specialized resources in the several libraries, but no survey less ambitious in scope than the task of compiling the catalog itself, or a sample thereof, can actually determine which libraries do or do not hold titles not elsewhere available in the region. Practically all libraries, however small, hold some material not held elsewhere in the region. This material may in most cases be insignificant in both quantity and quality, but the quantitative judgment is unimportant when a specific title is wanted, and few librarians and scholars are willing to undertake a qualitative judgment, even to the extent of sending

some of their books to a storage library only 24 hours away.

It is nevertheless true that the smaller libraries in a region can add few unique titles to a regional union catalog, and there are situations where this factor must be taken into consideration when funds for the compilation of the catalog are limited. A tabulation of the experience of six regional union catalogs in this respect is given in Table 2, which shows the number of libraries in each of the six regional union catalogs that hold more than one per cent of the unique titles in the catalog. It is at once apparent that there is an inverse ratio between the number of libraries included in the catalog and the per cent of libraries holding a significant number of unique titles. Thus for Philadelphia, which includes 151 libraries in its catalog, only 16 per

TABLE 2

RELATION BETWEEN THE NUMBER OF LIBRARIES INCLUDED IN A UNION CATALOG
AND THE NUMBER OF UNIQUE TITLES HELD BY THOSE LIBRARIES

<i>Union Catalog</i>	<i>Number of Libraries Included in Union Catalog</i>	<i>Number of Libraries That Hold More Than One Per Cent of Unique Titles in Catalog</i>	<i>Per Cent of Libraries Included in Each Union Catalog That Hold More Than One Per Cent of Unique Titles in Catalog</i>
Philadelphia	151	24	15.9
Cleveland	47	14	29.8
Ohio	44	13	29.5
Westchester County	38	18	47.4
Nebraska	30	25	83.3
Nassau County	26	17	65.4

cent of these libraries hold more than one per cent each of the unique titles in that region. This percentage rises as the number of libraries included in a regional catalog decreases. And for the Nebraska Union Catalog 25 of the 30 libraries, or 83 per cent, hold more than one per cent each of the unique titles included in it. It is apparent that a very definite point of diminishing returns exists, after which the addition of more libraries to a union catalog will add very little to the catalog in terms of new titles not already represented. If the major objective of the union catalog is to locate as many different *titles* as possible without reference to the number of *copies* of each title that exist, it is important to realize that after a certain minimum number of libraries have been included, the new titles to be gained by adding another library are less than one per cent of the titles already recorded in the union catalog.

The experience of one union catalog in this respect will serve to illustrate how quickly the number of unique titles gained by adding another library to the union catalog falls off after the first 10 or 15 largest libraries have been included. The information in Table 3 was gained by tabulating all of the

UNION CATALOGS IN THE UNITED STATES

library locations on the cards contained in one tray of the Philadelphia union catalog. This tray contained 1,015 cards or titles on which were recorded 1,675 locations. The resulting figures may be accepted as a typical distribution of the Philadelphia union catalog, because several similar tabulations made previously produced substantially the same results. The 23 libraries in the table are arranged in descending order according to the number of unique titles they held within the range of the sample. This distribu-

TABLE 3

 PER CENT OF UNIQUE TITLES HELD BY TWENTY-THREE LIBRARIES
 INCLUDED IN THE PHILADELPHIA UNION CATALOGUE^a

<i>Library</i>	<i>Unique Titles</i>	<i>Per Cent of Total Unique Titles</i>	<i>Volumes</i>
1. University of Pennsylvania Main Library	115	15.90	934,150
2. Library Company of Philadelphia ^b	56	7.74	340,000
3. Academy of Natural Sciences of Philadelphia	45	6.22	130,000
4. Free Library of Philadelphia	45	6.22	733,850
5. College of Physicians of Philadelphia	43	5.95	185,600
6. Historical Society of Pennsylvania	33	4.56	300,000
7. American Philosophical Society	31	4.20	98,000
8. American Entomological Society	28	3.87	8,800
9. Mercantile Library	24	3.32	225,000
10. Haverford College Library	20	2.77	145,000
11. Bryn Mawr College Library	19	2.63	171,200
12. Friends' Historical Library	18	2.49	10,000
13. University of Pennsylvania Biddle Law Library	17	2.35	104,200
14. Temple University	15	2.07	192,100
15. Franklin Institute Library	13	1.80	121,600
16. Philadelphia Bar Association Library	12	1.66	98,200
17. University Museum	11	1.52	15,900
18. Pennsylvania Museum of Art Library	10	1.38	20,000
19. Philadelphia Commercial Museum	10	1.38	50,000
20. Friends' Free Library	9	1.24	38,550
21. Numismatic and Antiquarian Society of Philadelphia	8	1.11	4,500
22. Presbyterian Historical Society	8	1.11	75,000
23. Swarthmore College Library	8	1.11	118,750
67 other libraries	125	17.29	997,250
60 other libraries	0	0.00	382,350
Total	723	100.00	5,500,000

^a Based on random sample of 1,015 titles in 1,675 locations.^b The Main Library and Ridgway Branch catalogs were photographed separately and are separately recorded in the Union Catalogue. They were also tabulated separately, but are here combined to give a more accurate picture of the unique holdings of the Library Company.

tion is presented graphically in Figure 1, page 21, which shows how rapidly the percentage of unique titles found in each library decreases after the first 10 or 15 libraries are included in the catalog. Each of the other 127 libraries included in the Philadelphia Union Library Catalogue contributed less than one per cent of the unique titles in the catalog. This figure is in the nature

of a post-mortem on what happened when the catalog was compiled; as such it is of no help in deciding which libraries should be included in another union catalog, in which it is desired to include only those libraries that will contribute a significant number of new titles. It must be remembered too that the analysis is made on the basis of a union catalog containing 151 libraries. If it had been possible to make the tabulation on the basis of only the 23 libraries presented in the table, the per cent of total unique titles would have been slightly larger in each case, but the general pattern would have been substantially the same as that shown in Figure 1. Since the only comparable information usually available for a group of libraries is the size of their book stock, the figures showing the number of volumes in these 24 libraries have been included in Table 3 in order to make possible the construction of Figure 2, in which these 23 libraries are arranged in descending

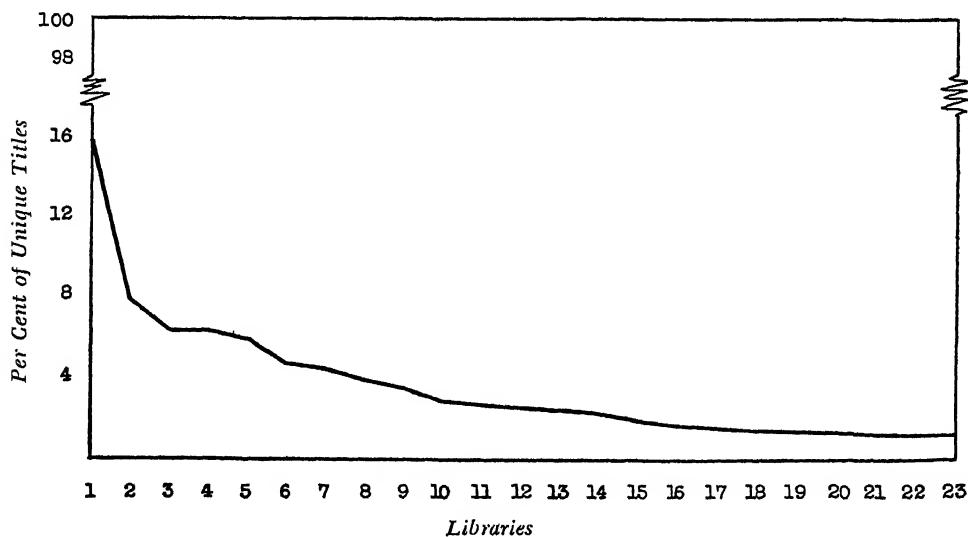


Fig. 1.—Per cent of unique titles held by 23 libraries included in the Philadelphia union catalog. I. (Libraries arranged in descending order according to the per cent of unique titles held by each library. Based on data shown in Table 3.)

order according to the number of volumes held by those libraries. The curve in this figure is naturally not as smooth as that in Figure 1, but the general descending trend is the same, and it is possible to conclude that libraries in general own titles unique to their region in direct proportion to the number of volumes they hold. It is thus possible to say that if it is desired to compile a union catalog of only those libraries within a region which contain a significant number of titles unique to the region, the libraries should be included in descending order according to the number of volumes they hold. If the term "significant" is taken to mean the addition of at least one per cent of unique titles to the union catalog, it will be necessary to add libraries to

the union catalog until that point is reached. In Philadelphia that point would have been reached after the twenty-third library was added. Of course, if this procedure were actually carried out mechanically, it would be necessary to go somewhat beyond the twenty-third library when they are arranged according to their size. Certain variations do occur, such as those causing the humps in Figure 2, and it would be necessary to carry the compilation suffi-

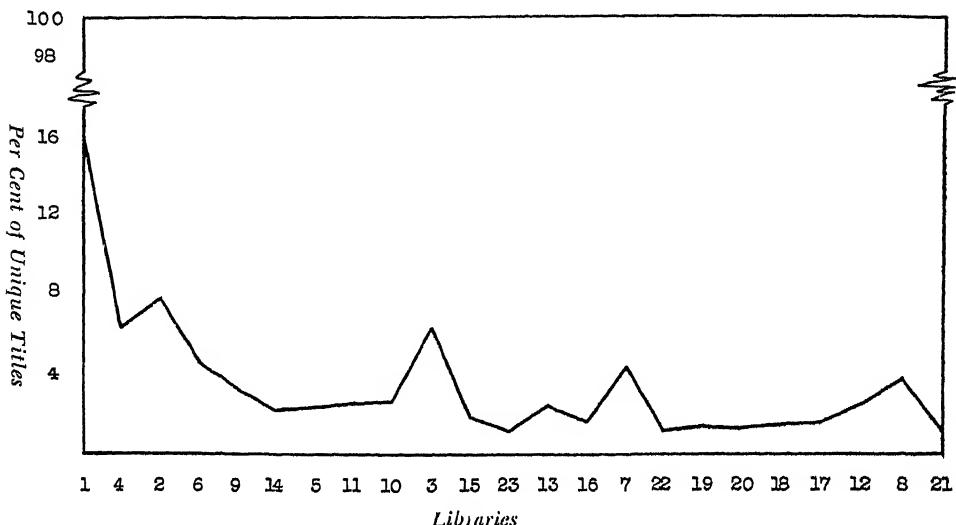


Fig. 2.—Per cent of unique titles held by 23 libraries included in the Philadelphia union catalog. II. (Libraries arranged in descending order according to the number of volumes in each library. Based on data shown in Table 3.)

ciently far to be certain that all other libraries would contribute less than the one per cent prescribed. It is not necessary, however, that the procedure be followed in a mere mechanical fashion. A local survey of library resources will reveal libraries that are strong in certain special fields not otherwise covered in their region, and it would be wise to include these libraries in the union catalog even though the number of volumes actually held would place them far below the theoretical point of diminishing returns.

One other method for working out *a priori* the order in which union catalogs should be copied if it is desired to include those libraries first which will turn up the greatest proportion of unique titles is that worked out for the study of library resources which is described in Chapter IV. The sampling procedure need not be as extensive as that outlined, since the number of titles within a particular region would be considerably less than the 3,682 titles found in the 88 libraries checked. The use of such an advance sample in Philadelphia, for example, would have involved the copying of only 699 cards in the process of checking the 151 libraries. It is thus possible to use a small sample of less than 1000 cards to determine in what order the libraries

within a given region should be copied, if it is desired to include them according to their ability to contribute new titles to the union catalog. This procedure will be particularly helpful if the catalog is compiled over a considerable period of time by a very small staff, since it will facilitate the inclusion of a maximum number of titles during the initial stages of compilation, making it possible for the union catalog to demonstrate its usefulness early in its history.

THE UNION CATALOG: ACCESSIONS

In addition to the purely mechanical problem of filing cards currently received by the union catalog from the participating libraries, most union catalogs are confronted with the administrative problem of inducing all of the libraries to send in the required cards to the catalog. It is, of course, normal procedure for union catalog authorities to exact an informal, verbal agreement about contributing accessions from each library before its catalog is copied. Some few cases exist in which that agreement was not forthcoming and the catalog was nevertheless copied. This was sometimes done in the hope of later inducing the library to send its cards, sometimes with the understanding that the union catalog would itself take care of getting the information from the library's records, and sometimes because the library's collection was important enough to include in the union catalog whether or not its accessions were later received. In most cases the agreement to submit cards for accessions is obtained without difficulty, there being comparatively little unwillingness to cooperate in keeping the catalog up to date.

The ability of the participating libraries to send in the cards they are willing to send is another matter, and has received comparatively little attention in the compilation of existing union catalogs. There seems to be no problem with large libraries that have separate cataloging departments; the typing or otherwise processing of one extra card is little or no trouble and is hardly noticed as an additional expense to the library. It is the smaller libraries which find it difficult to comply with their very real and sincere desire to fulfill their promise to send cards to the union catalogs. Small library staffs are so busy that the typing of an extra two or three hundred cards a year is a chore they may never get to under the pressure of more immediately urgent tasks.

The Union Library Catalogue of the Philadelphia Metropolitan Area has been actively concerned with the problem and has recently devoted several pages of its newsletter to an analysis of its experience. Table 4 is adapted from the newsletter⁴ and shows that 40.4 per cent of the 151 libraries included in the union catalog failed to send cards for their accessions to the

⁴ The Philadelphia Bibliographical Center and Union Library Catalogue, *The News Letter*, No. 2 (Philadelphia: The Center, 1941), p. 5. (Mimeographed.)

UNION CATALOGS IN THE UNITED STATES

union catalog during 1940. Five of these libraries have been dissolved and could not be expected to contribute, leaving 37.1 per cent of the libraries in the Philadelphia metropolitan area in some measure delinquent in their reporting of new accessions to the union catalog.

TABLE 4

EXTENT TO WHICH LIBRARIES IN THE PHILADELPHIA METROPOLITAN AREA
SUPPLY ACCESSIONS TO THE UNION LIBRARY CATALOGUE

Size of Libraries (Volumes)	Number of Libraries	Cooperating Libraries		Delinquent or Inactive Libraries		Dissolved Libraries	
		Number	Per Cent	Number	Per Cent	Number	Per Cent
More than 100,000	13	13	100.0	0	0	0	0
50,000-99,999	10	8	80.0	2	20.0	0	0
25,000-49,999	17	13	76.5	4	23.5	0	0
10,000-24,999	26	19	73.1	6	23.1	1	3.8
Less than 10,000	85	37	43.5	44	51.8	4	4.7
Total	151	90	59.6	56	37.1	5	3.3

When this total figure is distributed according to the size of the libraries, it is seen at once that it is the smaller libraries which have been delinquent, and that nearly all of the large libraries sent their accessions during 1940. If large libraries are defined as those owning more than 50,000 volumes, 91 per cent of them have been contributing cards regularly; if those libraries having less than 50,000 volumes but more than 25,000 are included, the percentage becomes 85. Those libraries owning 25,000 volumes or more own approximately 90 per cent of the 5,500,000 volumes held by the 151 libraries included in the union catalog, leaving 10 per cent to the 111 libraries owning less than 25,000 volumes each. The 151 libraries are thus divided into two groups containing 4,950,000 volumes and 550,000 volumes respectively, as is shown in Table 5. When these figures are multiplied by the respective percentages, it is possible to arrive at an approximation of the number of volumes for which accessions are being received by the union catalog, and also at a percentage of 82 by dividing that figure—4,482,000 volumes—by 5,500,000, the total number of volumes included in the union catalog. It must be remembered that this figure and this percentage are approximations only, since they are based on the assumption that the libraries in each category which did not contribute to the union catalog are equal in size to those which did. Since we know from Table 4 that all of the libraries holding more than 100,000 volumes contributed their accessions to the catalog, and that the proportion of cooperating libraries falls as the libraries become smaller, it is evident that this other assumption is somewhat unwarranted. The error

is in the direction of causing the estimates to be too low. It is possible, therefore, to say that the Philadelphia Union Catalogue is receiving accessions regularly for at least 4,482,000 volumes, or 82 per cent of the total volumes included in the union catalog. If it is assumed that the rate of delinquency has been comparable for previous years, it is thus apparent that

TABLE 5

VOLUMES INCLUDED IN THE PHILADELPHIA UNION CATALOGUE FOR WHICH
ACCESSIONS ARE BEING REGULARLY RECEIVED

<i>Libraries</i>	<i>Volumes Held</i>	<i>Per Cent of Libraries in Each Group Contributing to Union Catalogue</i>	<i>Volumes for Which Accessions Are Contributed</i>
40 libraries owning more than 25,000 volumes each	4,950,000	85	4,207,500
111 libraries owning less than 25,000 volumes each	550,000	50	275,000
151 libraries included in the Union Catalogue	5,500,000	82	4,482,500

the Philadelphia union catalog is no longer as perfect a catalog of the resources of Philadelphia libraries as it was five years ago when compiled. The rate and amount of delinquency, is, however, not serious, and if consistent efforts are made to decrease the rate, the loss to the catalog over a period of years will not significantly impair its efficiency, especially so since it is unlikely that many of the delinquent libraries fall into the group of 23 that contributed more than one per cent of the unique titles in the catalog.

Limited data available at other union catalogs suggest that the problem of acquiring accessions varies greatly in importance from catalog to catalog. In Cleveland accessions were received during 1940 from 80 per cent of the libraries holding more than 25,000 volumes each, and from 88 per cent of the libraries holding less than 25,000 volumes. In Columbus the Ohio Union Catalog received accessions during the year ending in November 1940, from only 70 per cent of the "large" libraries, and 20 per cent of the "small" libraries, there having been no attempt during the year to remind the delinquent libraries of their obligation. Both Nebraska and Oregon have records of 100 per cent cooperation, a situation much more remarkable in Nebraska than in Oregon where the constituent libraries are all members of the same library system. Maintaining a steady stream of accessions from all of the constituent libraries is an administrative responsibility from which the union catalog director cannot escape if the union catalog is to retain its prestige as a complete record of the resources of its region. The chore will

be more or less difficult according to special conditions in each region, but chore it will always be.

THE UNION CATALOG: ITS COMPLETENESS

The sponsors of a regional union catalog are sometimes faced with the necessity of deciding whether the proposed union catalog should include all of the cataloged material in the constituent libraries, or whether certain classes of material can be excluded without serious loss to the catalog. Apparently forced by considerations of cost, and backed by the belief that the inclusion of certain classes of material is inessential to the effectiveness of the catalog, slightly more than half of the regional union catalogs have excluded one or more specific types of publications. An examination of Table 6 shows that juvenile literature and fiction have been most frequently sinned against in this respect, each having been excluded from seven union catalogs. Other types of material were eliminated in only one instance each, for special reasons that are likely to obtain in no other situation.

Since the cost of including fiction and juvenile works is thought to be too great in relation to the probable usefulness of these materials in the union catalog, it should prove instructive to outline the savings effected in a typical instance. Of the 580,000 volumes in the public libraries included in the Nebraska union catalog, approximately 25 per cent,⁵ or 145,000 are juvenile volumes, and were excluded from the catalog. These 145,000 volumes represent 9.2 per cent of the 1,567,000 volumes held by the libraries included in the union catalog. If these volumes had been included, the union catalog would be less than 10 per cent larger than it is now—a matter of approximately 70,000 cards. They would have cost not more than \$3,570 to include at the rate of \$0.051 per card, which is what it cost to produce the Nebraska union catalog. Since WPA funds were available to cover this small amount, as was also the case in most of the other instances in which juvenile literature and fiction were excluded, it is necessary to look elsewhere for the real reason for exclusion.

Part of this explanation lies in the fact that the union catalog idea has up until now been considered merely a convenient device for locating books for interlibrary loan. Since present interlibrary loan practice almost entirely restricts the interlibrary circulation of juvenile works and fiction, it is at once apparent why the inclusion of these materials in a union catalog was in

⁵ William H. Clift, "Public Library Statistics," *A.L.A. Bulletin*, XXXV (1941), 213-62. For public libraries serving more than 200,000 population the median juvenile book stock is 22.2% of the median total book stock; for public libraries serving 100,000 to 199,999 population, the median juvenile book stock is 24.5% of the median total book stock; for public libraries serving 35,000 to 99,999 population the median juvenile book stock is 25.8% of the median total book stock; for public libraries serving 10,000 to 34,999 population the median juvenile book stock is 21.9% of the median total book stock; 25% has been used as a convenient multiplier.

some cases considered nonessential. If books cannot be loaned, there is no point in listing them. This same argument was instrumental in excluding reference works from the Nassau County union catalog. Another argument for the exclusion of these classes of material is based on the assumption that the union catalog is an instrument of research, and that fiction and juvenile literature are only rarely of interest to research workers, thus making their inclusion in the union catalog uneconomical at best. In those few cases where it is desired to locate fiction or juvenile titles, the cost of searching for them would be much less than that of including all fiction or juvenile works in the union catalog. There is a good deal of weight in this position, particularly so since most such titles will merely pass in and out of the union catalog as participating libraries buy new titles and discard old ones. Even in the

TABLE 6
CLASSES OF MATERIAL EXCLUDED BY NINE OF THE
SEVENTEEN REGIONAL UNION CATALOGS

Catalog	Coverage	Classes of Material Excluded
Cleveland	Complete	None
Philadelphia	Complete	None
Ohio	Partial	Adult and juvenile fiction except classics and foreign
Pacific Northwest	Complete	None
California	Partial	School texts from county libraries, English fiction and juvenile books from city libraries
Providence	Partial	Juvenile books, fiction published after 1876
Nebraska	Partial	Juvenile books
Denver	Partial	Fiction and juvenile books
Vermont	Partial	Fiction and juvenile books
Georgia	Complete	
Nashville	Complete	
North Carolina	Partial	Newspapers, Duke theses, current United States entries
Westchester County	Partial	Juvenile books
Oregon	Complete	
Nassau County	Partial	Fiction, Reference
New Hampshire	Partial	Fiction
New Jersey	Complete	None for county libraries

development of a program of library cooperation, it is unlikely that very much consideration need be given to the planned acquisition of juvenile and fiction titles. A categorical answer to the question cannot be given; we can only point to the fact that a minority of the 17 regional union catalogs chose to exclude each of these two classes of material, indicating a pattern of practice that points to American preference for including these materials in regional union catalogs.

Some difficulty with the policy of excluding fiction and juvenile works is already apparent in Table 6. The Ohio union catalog, for example, while excluding adult and juvenile fiction, includes classics and foreign fiction—a concession to the fact that some fiction is worth including. But who is to

segregate the classics from just ordinary fiction? And is the clerk who selects main entries for inclusion in the union catalog to be depended upon to recognize and include all foreign authors and no others? It is notable too that only juvenile fiction is excluded. Thus the mere accident of a classification number brings fairy tales out of the pale into the respectable company of the union catalog. In Providence, fiction published after 1876 is excluded, probably under the assumption that fiction published before that date has research value and may be in demand and available on interlibrary loan. But what is the union catalog to do a quarter of a century hence when research interests might conceivably demand access to all fiction published in the nineteenth century? Even now there are being developed two important collections of the much maligned dime novel. The study of juvenile literature or certain types of fiction may be just as important as these tomorrow or a decade hence. It seems apparent that the use of arbitrary lines of demarcation between works to be included and those to be excluded merely creates logical and administrative difficulties that negate, in part, the theoretical savings from such exclusions. Certain it is that the training of clerks to select main entries from library catalogs is complicated by the addition of matters extraneous to the identification of main entries, and that the actual process of selection is slower and therefore more costly.

Although the initial saving involved in excluding certain classes of material from the union catalog may be small, it may in some cases be necessary if the union catalog is to be compiled at all. Nevertheless, the decision to compile anything less than a complete record of the resources of a group of libraries must be made with full knowledge of the limitations the decision places upon the catalog. Insofar as it is considered more important to locate nonfiction than fiction, there can be little quarrel with excluding fiction from the catalog. And so also with other special classes of material. But it must be remembered that research is not apt to respect arbitrary lines drawn by librarians, and that the success of the union catalog depends on its ability and willingness to answer all requests and meet all demands, irrespective of their research character, or their evident seriousness. It must be remembered too, and this cannot be repeated too often, that a complete union catalog is the only adequate tool for the detailed study of regional library resources, the only adequate basis for a program of library specialization, and the fundamental implementation of a wide program of library cooperation.

CHAPTER 3: *The Union Catalog: Its Cost*

IN THE CONSIDERATION OF SO COMPLEX AN INSTRUMENT OF LIBRARY COOPERATION as the regional union catalog, no single factor gives quite so much pause as that indicated in the simple questions: "What will it cost?" and "How expensive is it to maintain?" These questions, voiced many times in professional conversation about union catalogs, and instrumental in discouraging more than one union catalog project, have already received some attention in American professional literature. In discussing "A 'Little Capital' for Libraries in Chicago," Professor Joeckel mentions the fact that "the idea of a union catalog is so fascinatingly complete and final that the technical complexities of the catalog and its initial and continuing cost are likely to be overlooked in the first flush of enthusiasm."¹ This has since been shown by quite a number of union catalogs which are nearing completion without apparent resources for their continued support, but it should not in itself be allowed to be too discouraging, for without this "flush of enthusiasm" many useful regional union catalogs would not now be in existence.

In presenting their recommendations for greater cooperation among the libraries in Westchester County, the surveyors state that: "In order to facilitate the location of titles in other libraries and to secure the greatest use of the book resources, union lists of holdings are essential," but add that: "Such a list of all of the adult nonfiction holdings of the libraries would be expensive to make. . . ."² No criterion for expensiveness is given, so it is not possible to say whether the construction of the union catalog of all adult fiction and nonfiction in Westchester libraries for \$30,000 proved an expensive project or not. Similarly, William Warner Bishop, in writing on the "Resources of American Libraries," remarks that "it is questionable whether regional catalogs in America will prove to be worth the money and time invested in their manufacture and in their upkeep."³ He mitigates the discouraging tone of this statement by admitting that regional union catalogs and their costs had not been carefully studied and that "it seems necessary

¹ C. B. Joeckel, "A 'Little Capital' for Libraries in Chicago," *Library Quarterly*, VI (1936), 221-36.

² Edward A. Wight and Leon Carnovsky, *Library Service in a Suburban Area* (Chicago: American Library Association, 1936), p.129.

³ *Library Quarterly*, VIII (1938), 471.

to work out definitely all the elements of cost involved in any new plan, and it is further necessary to inquire which of various methods is the most practical in its results as well as which is the least expensive."¹

There is thus much general feeling that the union catalog is expensive, that it costs more than it is worth to compile, and that its upkeep is prohibitive. Very nearly all of these judgments have been *a priori* in nature, since the cost of compiling or maintaining a union catalog has until recently been unknown. The whole or partial experience of 11 union catalogs is now available for examination and evaluation, and it is here the intention to present this experience in objective form so that other union catalog sponsors may estimate with reasonable accuracy the probable cost of their projects, and may evaluate in advance the probable usefulness of the catalog in terms of its initial and continuing costs.

The general over-all cost of compiling a regional union catalog will be shown in terms of the number of main entries to be copied and in terms of the number of volumes held by the libraries included in the catalog. Some attempt will be made on the basis of very limited data to show the proportion of the total cost of compiling a union catalog that is absorbed by labor, and the proportion of the labor cost that is needed for supervision. Because of its prevalence in union catalog construction and because of its adaptability to compiling large union catalogs, the microphotographic method is discussed in considerable detail. The dexigraph method will receive somewhat briefer treatment, and special consideration will be given to the three union catalogs that were compiled by various combinations of these two methods.

The data which it has been possible to gather from the limited number of union catalogs that have been in existence long enough to have maintenance costs are presented with such extrapolation for union catalogs in general as seems wise and justified. An attempt is then made to synthesize all of this information by working out the cost of compiling and maintaining a hypothetical union catalog of 2,000,000 locations representing libraries containing 4,640,000 volumes. The possibility of duplicating a catalog of this size by various methods is presented with comparative costs for providing from one to 25 copies with the use of each method.

A few definitions of common terms are in order, for their use in the paragraphs and chapters that follow is somewhat specialized. The first of these is "title" which is used to indicate the number of different main entries found in a library catalog or union catalog. When two or more library catalogs are combined to form a union catalog, the sum of the titles in their several catalogs become "locations," a term which indicates the total number of items included in the union catalog without reference to the amount

¹ *Ibid.*, p.472.

of duplication. Since two or more libraries always have some titles in common, the number of titles in the resultant union catalog is less—by the amount of duplication—than the sum of the titles in the several library catalogs. The term *tities*, then, is used to indicate main entries in library catalogs or in union catalogs, but *tities* in library catalogs become *locations* in the union catalog when reference is made to the number of library catalog titles that are recorded on the main entry cards in the union catalog.

COMPILED Cost

It is perhaps typical of librarians who have given little attention to cost analysis in the ordinary routine operations of their libraries, to neglect the maintenance of adequate cost records in the compilation of regional union catalogs. In those situations where the WPA met a major portion of the cost of compiling the union catalog, it was always inconvenient and often difficult to get from the WPA authorities exact figures on labor and other expenditures for the several phases of the project. Isolating the cost of certain operations from the cost of all operations in so complicated a procedure as compiling a union catalog is difficult at best, and would require the full-time attention of a professional librarian who is trained or experienced in cost analysis. Even though it is regrettable, it is for these reasons not surprising that we know very little concerning the detailed cost of compiling a union catalog, despite the fact that some 17 regional union catalogs are now either in operation or in the process of compilation.

Even the over-all total cost of each union catalog has in many cases been difficult to isolate, and it is necessary to present Table 7 with the understanding that it represents approximate figures at best. Figures concerning the number of volumes held by the libraries included in each union catalog are reasonably accurate, since they were drawn from the *American Library Directory* published most near the date at which the catalog was compiled. Not all libraries are listed, however, and for some of the catalogs the figures for public libraries have had to be corrected to exclude fiction or juvenile literature, or both, according to the policy of the catalog. Similarly, the figures for the number of titles included in the union catalog are reasonably accurate, having in most cases been drawn from the film or dexigraph record maintained at the catalog. This record was not, however, always available, and the figures for the last three catalogs in the table are merely approximations based on the experience for the other seven. And so also for the figures concerning the total cost. In Nebraska, Philadelphia, and Westchester, the figures may be accepted as reasonably accurate, but, in Ohio, the Cleveland catalog was not completed at the end of the period for which this total-cost figure was given. Figures for the three catalogs compiled by the dexigraph method are again reasonably accurate as such, but represent

UNION CATALOGS IN THE UNITED STATES

varying amounts of work on the catalog. Similar special considerations obtain for the last three catalogs compiled by special methods. All of these will be discussed in greater detail below.

TABLE 7
APPROXIMATE UNIT COSTS OF COMPILED ELEVEN
REGIONAL UNION CATALOGS^a

<i>Union Catalog</i>	<i>Volumes</i>	<i>Locations</i>	<i>Total Cost</i>	<i>Cost per Volume</i>	<i>Cost per Location</i>
<i>Microphotographic Method</i>					
Nebraska	1,422,000	699,000	\$ 35,811	\$0.025	\$0.051
Philadelphia	5,500,000	3,230,000	185,099	.034	.057
Westchester	641,000	477,000	29,149	.045	.061
Ohio (2)	11,135,000	4,564,000	419,503	.038	.092
Total	18,698,000	8,970,000	\$669,562	\$0.036	\$0.075
<i>Dexigraph Method</i>					
Oregon	387,000	196,000	\$ 4,946	\$0.013	\$0.025
Nashville	782,000	202,000	6,992	.009	.035
North Carolina	641,000	250,000	12,363	.019	.049
Total	1,810,000	648,000	\$ 24,301	\$0.013	\$0.038
<i>Special Methods</i>					
Pacific Northwest	3,785,000	1,631,000	\$108,992	\$0.029	\$0.067
Georgia	900,000	388,000	56,873	.063	.146
Denver	1,136,000	489,000	76,395	.067	.156
Total	5,821,000	2,508,000	\$242,260	\$0.042	\$0.096
Grand total	26,329,000	12,126,000	\$936,123	\$0.036	\$0.077

^a Exact data were in many cases unobtainable; hence the above figures represent only the most nearly accurate approximation possible with limited data.

LABOR COST

Since most of the more extensive union catalog projects were begun because a large amount of labor was available for the work without cost to the libraries concerned, it should be of interest to note just what proportion of the cost of compiling a regional union catalog is absorbed by labor. Figures showing the distribution between labor and non-labor costs are available for only six regional union catalogs. Five of these six catalogs were compiled with the aid of the WPA, and all of them were compiled by the microphotographic method. The figures which are given in Table 8 vary a good deal from catalog to catalog, but in general it may be said that expenditures for salaries constitute about 85 per cent of the total cost of compiling a regional union catalog. This figure is by no means definitive, but is in all probability

within five per cent of the true relation between salary expenditures and total expenditures. Two of the union catalogs, those of the Pacific Northwest and of the Atlanta-Athens Area, are not yet completed, and the figures given in the table are in whole or in part budgetary. In addition, both of these catalogs have expended a good deal of their budgets for Library of Congress cards and other material equipment, which serves to reduce the proportion of expenditures for salaries below those of the other four union catalogs which were compiled with the more direct objective of using as much labor and as little material as possible.

TABLE 8
PROPORTION OF TOTAL EXPENDITURES EXPENDED FOR
SALARIES BY SIX REGIONAL UNION CATALOGS^a

<i>Union Catalog</i>	<i>Total Expenditures</i>	<i>Salary Expenditures</i>	<i>Per Cent</i>
Pacific Northwest ^b	\$108,992	\$ 69,351	63.63
Georgia ^c	56,873	41,425	72.84
Nebraska	35,811	27,819	77.68
Philadelphia	185,099	157,791	85.25
Ohio (2)	419,503	389,069	92.74
Total	\$806,278	\$685,455	85.01

^a Except for Georgia, all of these figures are drawn from WPA sources.

^b These figures are budgetary.

^c These figures are in part budgetary.

Supervisory cost.—It is also of interest to note the proportion of expenditures for salaries that are needed for supervision. Our data here is even more limited, and Table 9 is important only because the per cent of the expenditures for salaries devoted to supervision comes to a net average of approxi-

TABLE 9
PROPORTION OF EXPENDITURES FOR LABOR EXPENDED FOR
SUPERVISION BY FOUR UNION CATALOGS

<i>Union Catalog</i>	<i>Labor</i>	<i>Supervision</i>	<i>Per Cent</i>
A	\$135,101	\$ 8,541	6.32
B	157,791	26,903	17.05
C	69,351	4,050	5.83
D	53,642	1,914	3.57
Total	\$415,885	\$41,408	10.00

mately 10 per cent. While it is probably true that the Philadelphia Union Catalogue (No. B in Table 9) has carried an unreasonably high overhead of administrative personnel, it is just as true that two of the other three union catalogs have carried an unreasonably low proportion of administrative personnel, assuming that quality of compilation is directly related to the amount

of supervisory personnel. That the combination of the figures for these four catalogs should have resulted in an even 10 per cent as the proportion of supervisory cost is an interesting coincidence. But it is probably true that Philadelphia could have done very nearly as well with less supervision, and that the two other catalogs would have benefited with a great deal more supervision.

One other approach to the proportion of supervisory cost is given in Table 10, which shows the per cent of supervisory cost apportioned to each of nine separate operations involved in compiling a regional union catalog that shall here be nameless. Here the amount of supervision is seen to be 7.79 per cent for the clerical operations and 10.01 per cent for the two professional operations. If the nine operations are taken together, the per cent of supervisory cost comes to 9.21, again approximately the 10 per cent found above. It must be admitted that Table 9, based on only four catalogs, and Table 10, based on the experience of only one union catalog, do not constitute evidence sufficient to establish 10 per cent as the proper supervisory cost. These tables do, however, represent the only available evidence on this point in connection with union catalog construction, and the figure of 10 per cent will be used, in what follows, for working out the several unit costs for specific operations.

MICROPHOTOGRAPHIC METHOD

Although the microphotographic method of compiling a union catalog is not yet the perfect procedure that we should like it to be, it is still the most generally acceptable technique available to us, and is still the most practicable for the compilation of a large union catalog. While it is true that a large portion of the preference for this method has been based on the availability of labor at no cost to the union catalog or to the participating libraries, secondary consideration of the problems involved when no subsidized labor force is available, still point to the microphotographic method. Specific comparisons of the advantages and disadvantages of the several methods of union catalog compilation will be found in the manual which forms part of this report. For the present discussion it will suffice to say that until the technical problem of facsimile reproduction on suitable cardstock is solved, the microphotographic method will hold its place as the cheapest, most suitable, and least disruptive of ordinary library service in the libraries whose catalogs must be copied.

It seems quite improbable that WPA labor, or any suitable counterpart, will be available for the construction of union catalogs during the next decade to any such extent as in the decade that has passed. All of the cost figures given below have therefore been related to a normal workday of eight hours, and to a pay-scale of 50 cents per hour for clerical work and 75 cents per hour

for professional work. Cost figures have been worked out in sufficient detail so that it is possible to substitute other wage scales if it is desired to do so. Averages and estimates have in all cases been conservatively made—so that the unit cost errs on the side of being too high, rather than too low.

Photography.—Unit costs for microfilming card catalogs were available in only three instances, and vary from \$0.0016 per card in Georgia, to \$0.0026 per card in Cleveland, to \$0.0052 in Philadelphia. The very low cost in Georgia is chiefly due to the fact that the photographic crew consisted of just one clerk who was not required to select the cards from the library catalogs. All of her time was spent in actual photographing, the cards being selected for her by the respective library staffs. The difference between Cleveland and Philadelphia seems largely due to the fact that the Cleveland union catalog found it possible to select and photograph 10,000 cards a day, while the

TABLE 10

RELATION OF SUPERVISORY COST TO TOTAL LABOR COST FOR EACH OF NINE OPERATIONS INVOLVED IN CONSTRUCTING A TYPICAL REGIONAL UNION CATALOG

Operation	Total Labor Cost (per Card)	Supervisory Cost (per Card)	Per Cent Supervisory Cost
<i>Clerical:</i>			
Photographing	\$0.00190	\$0.00012	6.32
Typing	.01966	.00146	7.43
Proofreading	.00966	.00072	7.45
Stamping	.00129	.00010	7.75
Rough filing	.00463	.00069	14.90
Stamping and recording duplicates	.00582	.00034	5.84
Changing headings and adding series notes and paging	.02160	.00160	7.41
Total	\$0.06456	\$0.00503	7.79
<i>Professional:</i>			
Revising	\$0.01215	\$0.00543	4.47
Checking unstamped cards and blurred cards	.10200	.00600	5.88
Total	\$0.11415	\$0.01143	10.01
Grand total	\$0.17871	\$0.01646	9.21

Philadelphia union catalog, because of a large number of small libraries that necessitated frequent moving of the camera, was able to select and photograph only 4000 cards a day. Whether there are corresponding differences in the quality of selection and photography is not relevant to the present discussion, which is merely descriptive of the figures presented by the various union catalogs. The Ohio union catalog, while presenting no unit-cost figure for microfilming, does give its photographing speed as being from 3000 to 8000 cards per day—depending on the experience of the crew. These figures,

4000, 10,000, and 3000 to 8000 may be roughly averaged to arrive at a normal speed of 5000 per day, which is the figure used in the estimates for microfilm-ing given in Table 11.

TABLE 11
COST OF MICROPHOTOGRAPHING LIBRARY CATALOGS

	Cost per Day
Three clerks at 50c for 8 hours	\$12.00
Supervision at 10 per cent	1.20
Film	2.75
Camera rental	<u>1.50</u>
Total	\$17.45
Miscellaneous at 5 per cent	<u>.87</u>
Grand total	\$18.32
Unit cost (at 5000 cards a day)	\$ 0.0037

Experience in Philadelphia and in Nebraska has shown that a camera crew of one operator and two selectors, all of them classed as junior clerks, is an efficient unit for selecting and photographing library card catalogs. The price given for film is the standard price of the Recordak Corporation for a 100-foot roll of 16-mm. microfilm and includes processing. The camera rental is figured on the charge of \$30 a month made by the Recordak Corporation and a work-month of 20 days. The five per cent attributed to miscellaneous expenditures cover such items as travel, trucking, and express charges, not all of which need necessarily occur on the same project.

Typing.—Four union catalogs recorded the speed with which an average inexperienced typist could copy cards from microfilm, the number of cards produced per hour varying from 25 to 41, with the average at 35. If we accept as normal typing speed the 44 cards per hour given by Miss Mann,⁵ the typing speed at these union catalogs is somewhat slow. It is quite natural that it should be so, for the workers were for the most part inexperienced in typing cards, and typing from a Recordak reader is more difficult than from normal library copy. When the labor cost is added to the several other costs involved in typing cards, the unit cost is found to be \$0.0206 per card, as is shown in Table 12.

Proofreading.—Only two union catalogs have recorded figures for the speed of proofreading with the original film, the two figures being 54 and 57 cards per hour, or an average of 55 cards an hour. On this basis the cost of proofreading is a little over one cent per card, as is shown in Table 13. This figure

⁵ Margaret Mann, *Introduction to Cataloging and the Classification of Books* (Chicago: American Library Association, 1930), p. 310.

is almost identical with that reported by two university libraries for the proofreading of typed cards. Part of the reason that so few of the union catalogs recorded the speed of proofreading is that so few of them included this step in the compilation procedure. It is argued by Miss Campion, who was active on both the Philadelphia and Nebraska projects, that corrections

TABLE 12
COST OF TYPING CARDS FROM MICROFILM

	<i>Cost per Day</i>
Labor: 8 hours at 50c	\$4.00
Supervision at 10 per cent	.40
Cardstock at \$4.00	1.12
Typewriter at \$2.50 a month	.12
Recordak at \$2.50 a month	.12
<hr/>	
Total	<hr/> \$5.76
 Unit cost (at 280 cards a day)	 \$0.0206

found necessary in the process of editing are not in any appreciable extent due to typing errors, and that such errors will come to light soon enough in the editing procedure. This may well be so, but since so few union catalogs are ever completely edited, it would seem preferable to have the unedited portions of the catalog in as accurate a form as possible.

TABLE 13
COST OF PROOFREADING

	<i>Cost per Day</i>
Labor at 50c an hour	\$4.00
Supervision at 10 per cent	.40
Recordak at \$2.50 a month	.12
<hr/>	
Total	<hr/> \$4.52
 Unit cost (at 440 cards a day)	 \$0.0103

Stamping.—The comparatively minor process of stamping the library symbol on each of the typewritten cards can be done at the rate of 425 cards an hour, on the basis of figures furnished by two union catalogs. At 50 cents an hour, plus 10 per cent for supervision, the unit cost of this operation is \$0.0013.

Filing.—The problem of filing during the process of compiling a union catalog is considerably different from that of ordinary filing into a catalog that already exists. The filing staff is confronted with a mass of several hundred thousand or even several million cards which are in little or no order,

and the consequent organizational and administrative problems require careful professional supervision. One could have hoped that the librarians in charge of this comparatively new development would have taken the slight amount of additional time and trouble necessary to establish the cost of filing cards en masse, but it is nevertheless true that no union catalog compiled by the microphotographic method has maintained the records necessary to establish the cost of filing millions of cards.

A job roughly comparable is the filing of a complete depository set of approximately 1,625,000 cards. These cards are selected by serial number and are entirely innocent of alphabetical arrangement when the filing project begins. We are fortunate in having two separate analyses of the cost of filing a depository set, one of them prepared by the Library of Congress itself, and the other prepared by the Pacific Northwest Union Catalog. The Library of Congress figures are based on a system of piecework that pays certain amounts per thousand cards handled, and adds up to a total of \$4 per thousand cards. In the Pacific Northwest, where the staff is furnished by the WPA and is paid an hourly scale of slightly more than 50 cents, the cost per thousand cards comes to \$7.06. If the scale is reduced to exactly 50 cents an hour for clerical time and 75 cents an hour for supervisory time, the cost per thousand cards is \$6.84. The difference between \$4 a thousand and \$7 a thousand is in all probability accounted for by the fact that the Library of Congress staff is experienced in the handling of cards, whereas the WPA staff consists of older persons who have only a limited familiarity with the alphabet, and whose dexterity in handling cards is slow to develop. Since the typical situation in union catalog compilation will usually approximate that in Seattle rather than that in the Library of Congress, the figure of \$7 per thousand, or \$0.0070 per card, will be accepted as being a reasonable filing cost during the construction of a regional union catalog.

Combining and stamping.—After the filing of a regional union catalog has been completed it is desirable to consolidate on one card the location symbols of all the libraries that hold the same book. This process is usually called "combining," for want of a better term, and is sometimes segregated into two processes, "combining" and "stamping." In WPA Technical Bulletin No.1, Miss Campion reports that it is possible to combine 250 cards per hour and to stamp 1000 cards per hour.⁹ At 50 cents per hour the unit cost of the two processes is \$0.00275. Miss Campion's figures include those cards that represent books held by only one library and are not subject to this process and thus are an accurate reflection of the cost per card of combining and stamping all of the cards in the union catalog.

In Cleveland it was found that the unified process of combining and stamp-

⁹ U.S. Federal Works Agency, Work Projects Administration, *Union Cataloging Projects* (Washington, 1940), p.31 (WPA Technical Series: Library No.1). (Mimeographed.)

ing could be done at the rate of 93 cards per hour, or at a unit cost of \$0.00572 for cards actually handled. As is shown in Chapter IV, page 91, the number of cards representing books held by only one library in a typical regional union catalog is approximately half of the total number of cards copied for the catalog. The unit-cost figure for Cleveland must therefore be divided by two to arrive at \$0.00286 as the unit-cost figure for the whole union catalog. When the two figures are averaged, the unit cost for combining and stamping is found to be \$0.0028.

The fact that the process of combining costs is so very nearly the same amount at these two union catalogs is probably more than coincidence, for the two catalogs include very nearly the same number of libraries. The cost would be expected to be higher at a union catalog including a much larger number of libraries, such as the catalog in Philadelphia, and lower at a union catalog containing a much smaller number of libraries, such as the catalog in Oregon. It is obviously a more time-consuming task to handle 150 location stamps than it is to handle six, and the unit cost will vary accordingly. The cost would theoretically also vary according to the amount of duplication itself, but since this was comparatively constant for all of the union catalogs for which data were available, it need not be considered. The unit cost for combining that will be used in this analysis is that derived from the two figures at Nebraska and Cleveland, but it should be remembered that the cost may vary slightly according to the number of libraries included in the union catalog.

Miscellaneous costs.—Of the several factors remaining, that are involved in the cost of compiling a union catalog, only one, the cost of card cases, can be estimated with any certainty. Card cases vary a good deal in quality and price, but the figure used here will be based on the standard price of \$4.00 per tray currently quoted by the library supply houses. This brings the unit cost of housing the union catalog to \$0.0027, if it is decided to allow for some expansion by placing only 1000 cards in each tray. This unit cost is applicable to the entire number of cards copied for the union catalog before any combining is done. Since, according to the analysis on page 93, it was found that duplicate cards discarded in the combining process amount to approximately 33 per cent, the cost of housing the remaining cards may also be reduced by 33 per cent, making the unit cost for card cases \$0.0027 instead of the \$0.004 it would be if all of the cards were retained.

For those union catalogs which were compiled by WPA labor, the project proposal usually contained an item for space, light, heat, and telephone as a portion of the sponsor's contribution to the project, and frequently as a convenient method for bringing the sponsor's contribution up to the 25 per cent required by WPA regulations. This figure, an approximation at best, since the sponsor had no way of knowing just what those costs actually were,

seems usually to have been between two and three per cent of the total cost of the project. Since two and one half per cent of the sum of the unit costs already mentioned happens to be \$0.0025, this figure will be used as the unit cost for space. No accuracy is claimed for it; it is merely included to show that space does represent a cost that must be included in reckoning the total cost of compiling a union catalog.

Ordinary office and library supplies, stationery, and other incidental costs must also be figured into the total cost of a union catalog. The one union catalog that kept an accurate account of such expenditures found that they ultimately amounted to two and one half per cent of the total cost of the project. Accepting this figure only because it is the only one available, another unit cost of \$0.0025 is added in the name of supplies.

The amount of editing that a union catalog is theoretically able to absorb is almost without limit, and is far more than can legitimately be included in the cost of compilation itself. A certain minimum amount of editing must, however, be done if the catalog is to be compiled at all. Problems arising in the course of arranging the cards, and in the course of consolidating locations on single cards, are amenable to solution only if some editing is done. There are no data available to show just what this minimum has been or should be, and there is at once no justification and every justification for setting that minimum at one-half cent a card. For a union catalog of 3,000,000 cards, the approximate size of the Philadelphia Union Catalogue, the cost of editing would thus come to \$15,000. While the Philadelphia Union Catalogue could not have spent this amount during the period of compilation, it undoubtedly has spent this much by now. Certainly no union catalog can be said to be giving adequate service unless it has received at least this minimum amount of editing.

Since data on the cost of editing is entirely lacking, it was necessary to fix an arbitrary cost which is assumed to be constant for union catalogs of all sizes and descriptions. This is not necessarily true, for it is obviously less difficult to reconcile the variant cataloging practices of only six libraries, as was the case in Oregon, than it is to reconcile those of 151 libraries, as was necessary in Philadelphia. The age and condition of the several library catalogs will also influence the amount of editing necessary, and consequently its cost. Similarly, it will be more difficult to edit a union catalog that is made up of libraries of widely differing types and fields, such as the Philadelphia union catalog, than it is to edit a union catalog composed of libraries similar in type and function, such as the Ohio union catalog. Variations such as these will cause considerable differences in the amount of editing necessary in a given union catalog, but it is unlikely that the minimum of editing possible with an allowance of one-half cent a card will be too much for any of the 17 union catalogs now in existence or in compilation.

A summary of the several unit costs that have been discussed above is given in Table 14, which shows that the total unit cost of compiling a regional union catalog by the microphotographic method is \$0.0584, or approximately six cents per location. Notwithstanding the approximations necessary in some of the constituent figures and the rather limited number of catalogs from which cost figures were available, it is reasonably safe to say that a regional union catalog which is carefully planned and efficiently administered should not cost more than six cents per location to compile, if labor and material costs are comparable to those used in this analysis.

TABLE 14
SUMMARY OF UNIT COSTS INVOLVED IN MICROPHOTOGRAPHIC
METHOD OF COMPILING A UNION CATALOG

<i>Operation</i>	<i>Cost</i>
Photography	\$0.0037
Typing	.0206
Proofreading	.0103
Stamping	.0013
Filing	.0070
Combining	.0028
Card cases	.0027
Space	.0025
Supplies	.0025
Editing	.0050
Total	\$0.0584

DEXIGRAPH METHOD

Three of the union catalogs under consideration in this analysis of cost were compiled by the dexigraph method, a photographic process that produces a negative card on photographic stock. Since no typing of cards is necessary, the process is somewhat cheaper, but has other disadvantages that more than offset its somewhat lower cost. The major disadvantage is the card stock itself, which is inferior in wearing qualities to the usual rag-stock cards used by libraries, and whose tendency to curl makes the resultant catalog somewhat difficult to use. Since the dexigraph cards are photographic negatives, it is difficult to add location symbols to the cards. This fact, as well as the poor quality of the paper, make almost impossible legible and presentable corrections on the cards in the process of editing. The cards themselves are, of course, accurate copies of the original catalog cards, but necessary corrections and additions always present themselves when two or more library catalogs are filed together. It is important to the administration and operation of the catalog that these discrepancies be capable of easy and simple correction.

When these difficulties are weighed against the saving of only one-half

cent per title, it would seem in the long run to be uneconomical to use the dexigraph method, particularly when compiling a large union catalog. The cost of dexigraph work when it is done with standard equipment by the Remington Rand Corporation is three cents a card. This process displaces the first three operations shown in Table 14, which make up a combined unit cost of \$0.0346. That figure does not include the selection and replacement of cards, and if this is computed at the rate of 5000 cards a day, and is assumed to require two clerks at 50 cents per hour, as is the case with the microphotographic method, an additional cost of \$0.0016 per unit must be added to the three cents to make a unit cost of \$0.0316. From this may be deducted approximately half of the expenditures for space and supplies under the microphotographic method, since neither space nor supplies are needed for typing. The actual card reproduction cost with the dexigraph method is thus brought to \$0.0291, as compared with \$0.0346 for the microphotographic method, a saving of \$0.0055 per unit. When the card reproduction cost is added to the other items in Table 14, all of which are retained in the dexigraph method, the cost of compiling a regional union catalog with the dexigraph is \$0.0528 per title.

If this figure is compared with those shown in Table 7 for the three union catalogs compiled by the dexigraph method, it will be seen to be somewhat higher than actual experience would indicate. The explanation lies in the fact that the cost figures for each of the dexographed union catalogs do not include all of the processes that are normally necessary in compiling a regional union catalog. The figures for Nashville and North Carolina, for example, do not include the cost of combining duplicate locations on a single card. In Nashville the cost of selecting the cards to be copied is not included, and in North Carolina the dexigraph cards from the two libraries were not filed together at all. The selection of cards and the process of combining were also excluded from the cost figures for the Oregon catalog. In addition, this catalog was compiled with locally constructed equipment which reduced the dexigraph cost to \$0.0203 per card. Had these various processes been included in the figure given for the cost of compiling each of these catalogs, the resultant unit-cost figure would more nearly approximate that which was worked out above.

SPECIAL METHODS

Pacific Northwest Union Catalog.--An hitherto untried method is being used in the compilation of the Pacific Northwest Union Catalog in the University of Washington Library of Seattle. Sponsored by the Committee on Bibliography of the Pacific Northwest Library Association, the project has a grant of \$35,000 from the Carnegie Corporation of New York, and is going ahead under a WPA project which will supply all of the necessary clerical

labor, as well as technical supervision. The work was begun by purchasing a complete depository set of Library of Congress cards, and the initial task of the WPA staff involved the filing of these 1,625,000 cards. When this is finished, a complete file of the John Crerar Library cards already held by the University of Washington Library will be filed into the depository set, thus making a basic file for the Union Catalog of about 2,000,000 printed cards.

The library catalogs to be included in the Union Catalog are to be copied photographically by the duo-photo process. This method photographs thirteen cards at one time on a sheet of sensitized paper, resulting in a reversed negative that must be read over a strong light. It is planned to compare these sheets card by card with the basic file, adding the library symbols to the printed cards already in the file, and marking those cards on the negative sheets that are not found in the file. Positive copies will then be made of the cards which have been marked. These positive cards are made on heavy stock having an emulsion on both sides, a device designed to prevent the curling of the card, with not quite satisfactory results. The cards do curl to some extent, which makes a file composed in whole or in part of these cards somewhat difficult to use. These positive cards will be filed into the basic file as soon as possible so that other locations for the same titles can be stamped on them. Thus, as the work progresses, the number of positive cards to be made should progressively diminish.

The cost figures given for this Union Catalog in Table 7 are based on the WPA project proposal drawn up before the project was started, and represent, apparently, a very conservative estimate of the cost of the various operations involved in compiling the union catalog with the duo-photo method. The project has only just begun and no definitive speed or cost figures are as yet available. It is, however, unlikely that a final analysis of the cost of this project will compare as favorably with the microphotographic method as the present, somewhat conservative budgetary figures would indicate.

The Denver Union Catalog.—The procedure for reproducing the library catalogs in the Rocky Mountain region was a combination of dexigraph reduced by one third and direct copying on the typewriter from the library catalogs, sometimes in card form, sometimes in list form. Both the dexigraph work and the direct copying were not entirely satisfactory, as much from the point of view of poor cataloging in the constituent libraries as from poor technique in dexigraphing and typing. It was, therefore, decided to edit completely the Union Catalog during the process of compilation. Here too a complete set of Library of Congress cards was purchased and filed by a WPA staff. The dexigraph negatives and the other records of library catalogs are then compared directly with this basic file. If the title is represented in the catalog by a printed card, the library symbol is added to that card.

If the title is not found in the catalog, it is and has been the policy to locate that title in some printed bibliographic source before it is admitted to the catalog. If the title cannot be located in any printed source, the card is returned to the holding library for comparison with the book itself. It is at once apparent that this procedure is as costly as it is admirable, and it is quite obvious why the cost per location given in Table 7 for the Denver Union Catalog is as high as 15 cents. The catalog is, however, only about two-thirds completed, and the unit cost will probably increase by another third to perhaps 20 cents a location. Although this union catalog is costing more to compile than any of the other catalogs, the cost definitely reflects a superior and more technically correct compilation procedure, and will ultimately pay dividends in terms of lower maintenance costs and more efficient bibliographical service.

The Georgia Union Catalog.—The situation in Georgia is quite similar in that it was also decided to compile a bibliographically correct union catalog step by step as compilation proceeded. A basic catalog was constructed by purchasing Library of Congress cards for all possible titles in the Emory University Library, and by typing cards for the remainder. A majority of the other library catalogs in the area were copied by the microphotographic method. These films are then compared card for card with the basic catalog. Location symbols are added to the basic file where possible, and Library of Congress cards are ordered in all other cases. It is seen at once that this procedure is a good deal slower than the mass-production technique of the straight microphotographic method of compiling a union catalog, and accounts in part for the comparatively high unit cost shown for the Georgia Union Catalog in Table 7. This unit cost is also materially increased by the fact that a good portion of the budget of the Union Catalog project is devoted to the original cataloging of hitherto uncataloged material in the six sponsoring libraries. It is thus only natural that a unit cost based on an approximation of the number of titles in these libraries should be a good deal higher than the cost experience of other union catalogs would indicate.

COMPARISON WITH UNION LIST OF SERIALS

Even though all of the factors involved are not comparable, the prevalence and popularity of union lists, particularly union lists of serials, make an attempt to compare the cost of compiling a regional union catalog with that of a union list of serials not uninteresting. The *Union List of Serials*⁷ was used for this comparison, chiefly because approximations of its cost were most easily available.

The estimated cost of \$36,000 given in the preface to the *Union List*⁸ rep-

⁷ Winifred Gregory, ed., *Union List of Serials in Libraries of the United States and Canada* (New York: H. W. Wilson Co., 1927).

⁸ *Ibid.*, p. iv.

resents the committee's idea of the cost before the work was begun. This figure turned out to be some \$13,000 short of meeting the editorial expenses and did not take into account the cost of printing, which amounted to \$37,000 more, to which must also be added about \$3000 for miscellaneous expenses of The Wilson Company. Since a selling commission is usually not a part of union catalog expenditures, the amount used for that purpose in connection with the *Union List* has been deleted from these figures, all of which were supplied by The Wilson Company through the Chairman of the American Library Association Advisory Committee on the Union List of Serials. In addition to this expenditure of \$89,000 for editing and publishing the *Union List*, it is estimated by Wyllis E. Wright of the New York Public Library that the 225 libraries included in the list spent at least \$150,000 more in doing the necessary checking in their own libraries, making a total of \$239,000 as the cost of producing the *Union List of Serials*. Inasmuch as \$10,000 was granted by the Laura Spelman Rockefeller Memorial⁹ for this checking in government libraries in and around Washington, the estimate of \$150,000 for checking in all of 225 libraries is not too high, even though it does represent about \$666 per library.

The *Union List* and a regional union catalog differ in many respects, the most important of which is that the *Union List* is a national and not a regional list, its objective being to cover the more important libraries all over the country, and not all of the libraries in a more limited area. A union list endeavors to show the exact holdings of each title by each library, whereas most union catalogs are content with indicating which libraries own each title. The union list is completely edited before it is published; no present union catalog has been completely edited and none has been published. The union list is considered complete and finished as of a certain date; the union catalog is never finished. The union list is published in many copies and is widely circulated, making possible the distribution of its cost over a large number of libraries. The union catalog usually exists in one copy only and can expect support only from the libraries in its immediate vicinity. The union list includes only a limited number of items existing in specialized format; the union catalog endeavors to include all cataloged material held by its group of constituent libraries. This catalog of differentia could continue almost indefinitely, but these few items should suffice to point up the essential dissimilarity between union lists and union catalogs, even though they both show in one unit the whole or partial holdings of more than one library.

Certain other differentia, statistical in nature, must be described before the cost figures are presented. Since most books appear in one volume only and since most serials appear in more than one volume, a given number of

⁹ *Ibid.*

main entries in a union catalog will represent a much lower number of volumes than the same number of entries in a union list. The ratio for union catalogs is shown in Chapter IV to be 2.32 volumes per title; the ratio for the experimental sections of the *Union List* tabulated was found to be 87.33 volumes per title. Similarly, since serials are so much fewer in number than books, libraries necessarily duplicate serial titles much more than they do book titles. The six union catalogs for which information is available show an average duplication of 33.3 per cent,¹⁰ whereas the duplication for the *Union List of Serials* was found to be 89.1 per cent. Since the union catalog figures include serial volumes and serial titles, these ratios do not indicate quantitative differences between books and serials, but merely differences between kinds of material included in union catalogs and kinds of material included in union lists.

These figures explain in part the wide differences in the several unit costs for union catalogs and union lists shown in Table 15. A union catalog costing \$249,000 would contain about 2,846,000 titles in 4,264,000 locations, in distinction to the 52,000 titles in 479,000 locations found in the *Union List*

TABLE 15
COMPARATIVE UNIT COSTS OF COMPILED A REGIONAL UNION
CATALOG AND THE UNION LIST OF SERIALS

	<i>Regional Union Catalog^a</i>	<i>Union List of Serials^b</i>
Titles	\$0.0875	\$4.79
Locations	.0584	.52
Volumes	.0252	.055

^aBased on unit cost developed in this chapter.

^bBased on estimated cost of \$249,000 and statistical estimate that the *Union List of Serials* contains 52,000 titles, 479,000 locations, and 4,541,000 volumes.

of Serials. The reason for the higher unit costs of the *Union List* for these two items is thus at once apparent. The high number of volumes per title for all of the items in the *Union List* is reflected in the third group of figures where the unit cost for the *Union List* is only twice that for the union catalog, which would represent 9,881,000 volumes to the 4,541,000 found in the *Union List*. Not too much significance must be attached to these figures, interesting though they are. The union catalog and the union list are two very different phenomena, designed for a number of purposes, only a few of which are mutual. If funds for library cooperation within a region or a nation are limited, the compilation of a union list of serials is a good place to start; many regions and localities have done so. And as more money becomes available for the more complete identification of regional or national library resources, the union catalog may be constructed to supplement and augment the union list of serials already in existence.

¹⁰ See analysis on page 93, Chapter IV.

MAINTENANCE COST

Although very few union catalogs give serious attention to the costs involved in maintaining the union catalog after it has been completed, this cost is nevertheless an important one and should be considered when the union catalog is planned. A disinterest in the problem of maintenance cost is reflected in the fact that none of the union catalogs now in operation have taken the trouble to outline those portions of their expenditures that may properly be charged to the maintenance of the catalog. Specific figures do not exist, and the following analysis of cost has perforce been made up in an almost *a priori* manner.

Since all of the regional union catalogs, except one, occupy space contributed by the institutions in which they are located, and since this situation is likely to continue both for these catalogs and for any others which may be created, the cost of space and its subsidiaries, heat and light, are here omitted from consideration. Another supply cost that will be ignored entirely because of the absence of data and because it frequently does not exist in a real sense, is the transportation of the cards from the library to the union catalog, as well as the incidental handling involved in segregating and wrapping the cards.

Specific costs that must be considered are the cost of the cards, of the card cases, and of filing the cards into the catalog. All other expenses of the union catalog, except for an infinitesimal amount for supplies used in filing, must properly be charged to other functions than the maintenance of the catalog *per se*.

The cost of cards for additions to the union catalog, representing accessions to the participating libraries since their catalogs were originally copied, is not ordinarily charged to the union catalog itself, but is paid by each individual library contributing cards. The cost is a real one, nevertheless, and must be considered as such when the total cost of compiling and maintaining a regional union catalog is under discussion. The cost is also an important factor to the participating library, and it is from this point of view that it is discussed by Maurice Tauber in his "Other Aspects of Union Catalogs."¹¹ The table presented by Tauber in showing the cost of preparing cards for the Philadelphia union catalog represents a reasonably fair approximation of the costs of producing additional cards for a union catalog by one library. The unit cost of \$0.028 derived from typing 18,974 cards for \$532.70 is perhaps unnecessarily high, but is traceable to his acceptance of the very low typing speed of 25 cards an hour that prevailed at the Philadelphia Union Catalogue during its experimental period. His own tests at Temple of 45 cards per hour would have been much more nearly accurate. A comparable analysis, somewhat revised and reduced to a unit-cost basis, is shown in

¹¹ *Library Quarterly*, IX (1939), 411-31.

Table 16. Here it is seen that the unit cost of producing an additional catalog card for a union catalog or for any other purpose is slightly in excess of two cents per card. This figure will be reduced somewhat if the contributing library uses Library of Congress cards. If a library secures 70 per cent of its cards from the Library of Congress, as is the case at Temple, the unit cost for all cards would be reduced to \$.019. Those libraries which reproduce their cards by some other method than typing would probably find the unit

TABLE 16
UNIT COST OF PRODUCING ADDITIONAL CATALOG CARDS

Item	Rate	Unit Cost
Cardstock	\$4.00 per M	\$0.0040
Typing (at 44 cards per hour ^a)	.50 per hour	.0114
Revision (at 120 cards per hour ^b)	.75 per hour	.0062
Unit cost		\$0.0216

^a According to Miss Mann's analysis on p. 310 of her *Introduction to Cataloging and the Classification of Books* (Chicago: American Library Association, 1930). This figure corresponds almost exactly with the average of the typing speeds furnished the writer by five university libraries.

^b Speed at Temple University, quoted by Tauher in his "Other Aspects of Union Catalogs," *The Library Quarterly*, IX (1939), 419.

cost for an additional card to be even lower. The cost of an additional card when it is mimeographed, for example, is only one-half cent.¹² Since, however, most libraries do not have special duplicating equipment at their disposal, and since the proportion of cards that it is possible to obtain from the Library of Congress varies from library to library, the unit cost based on reproducing cards on the typewriter will be used throughout this analysis.

THE COST OF FILING

The problem of filing cards into a regional union catalog is very much the same as filing cards into other library catalogs, and the time consumed in filing should be almost identical, even though filing into a union catalog is at once somewhat more difficult and somewhat more simple. It is more difficult because of the ever-present problem of editing cards produced by a score or more different library catalog departments. Although the filing process theoretically includes no editing, the filer must necessarily make some editorial decisions in the placement of cards, or must take the time to remove certain groups of cards for editorial attention. The job is more difficult, too, because it is advisable to have the filer do the necessary combining during the filing process, an operation that is demanded by about 33 per cent of the cards filed.

Filing into a union catalog is less difficult because it is an author catalog

¹² This figure is based on information furnished by the libraries of the University of California and the University of Texas.

rather than a dictionary catalog. Just how much difference this makes is not known, but it is generally accepted that filing into a dictionary catalog is more difficult and time-consuming than filing into an author catalog. Of more importance is the fact that since the union catalog can never hope to be completely current in its filing, it is possible to allow a substantial supplement to accumulate. Since a supplement of some size is always present, it makes little difference to the user of the catalog whether it contains 10,000 cards or 20,000 cards. Contrasted with this is the ordinary library practice of filing every completed card every week, or even every day. That the size of the supplement has a direct influence on the speed of filing was found to be definitely true at the Philadelphia union catalog where it was possible to file twice as fast with a supplement four times as large. Similar experience is recorded by the Union Catalog of the Library of Congress, where the filing staff is assigned to other duties when the supplement falls below 50,000 cards. There is undoubtedly a point of diminishing returns, where filing daily additions into the supplement would absorb the entire advantage of a larger supplement, but this point is not reached until the supplement is well over one per cent of the union catalog in size.

One other factor that theoretically enters into the cost of filing is the size of the catalog into which the cards are being filed. It was hoped that specific filing costs would be available in enough cases to isolate this factor, but the six cases shown in Table 17 were insufficient in number to reveal any signifi-

TABLE 17
APPROXIMATE COST OF FILING CARDS INTO SIX LIBRARY
AND UNION CATALOGS

Catalog	Cards Filed	Clerical Hours at 50c an Hour	Professional Hours at 75c an Hour	Total Cost	Unit Cost
A	24,933	661	1	\$ 331.25	\$0.0133
B	64,000	1,456	97	800.80	.0125
C	105,800	1,148	950	1,286.50	.0122
D	200,000	4,680	312	2,574.00	.0129
E	98,138	1,615	108	888.25	.0091
F	50,000	680	45	374.00	.0075
Total	542,871	10,240	1,513	\$6,255.30	\$0.0115

cant relationship between the size of the catalog and the speed of filing. It is entirely possible that this factor is so small that it is lost among more significant variables, such as individual differences, size of supplement, and kind of catalog.

The figures given in Table 17 represent an attempt to work out a general over-all cost for filing cards. Catalog A represents the cost of filing cards

into the depository catalog of a Middle Western university library. Catalogs B and C represent the cost of filing cards into the various catalogs in two West Coast university libraries. These are composite figures for the several different types of filing that obtain in depository catalogs, dictionary catalogs, official catalogs, and shelf lists. Catalog D represents the filing of some 200,000 Library of Congress cards into the Philadelphia Union Catalogue. It seems notable that this unit-cost figure is almost identical with that of the two preceding catalogs. Catalog E represents the cost of filing current additions into the Philadelphia Union Catalogue, and is somewhat lower, as one might suspect under a filing procedure that involves the retention of a considerable supplement. Catalog F represents the estimate of the Library of Congress of the cost of filing the annual additions to the depository catalog. This composite cost of filing cards under widely varying conditions is very nearly identical with that of \$0.012 per card reported by Fremont Rider¹⁸ for filing cards into the several catalogs at Wesleyan University. His figures were carefully worked out in a general study of library costs, and although specific salary figures are not given, it is unlikely that they differ materially from those used in Table 16. Thus, although it will be necessary to use \$0.0115 per card as a general over-all cost of filing cards into library catalogs, because it is the best figure we have, there is reason to believe that it is reasonably accurate as well.

Editorial cost.—Another cost that should be figured into the general cost of maintaining a union catalog is that of editing the additions to the catalog as they are received. The quality of cataloging in most libraries is a good deal better now than at any previous time in their history, and the quality of cataloging represented by the additions to a union catalog will be a good deal higher than the quality of cataloging in the basic union catalog at the time of compilation. Differences in cataloging technique between libraries will, however, in many cases not be apparent in the union catalog until other cards are supplied as additions to the catalog, and the editorial cost of adding cards to the union catalog will probably remain relatively constant over a long period of time. Cataloging standards will continue to change, and cards accepted as perfect today may very well cause editorial difficulties fifty years hence. For these reasons, the cost of doing a minimum amount of editing on the additions to a union catalog, as they are received, may be figured at the same rate of one-half cent per card as was assumed to be necessary for the basic catalog itself.

The cost of maintaining a union catalog up to and excluding the point where service begins, may now be briefly summarized. If it is assumed that all of the participating libraries will type their cards, each card contributed to the union catalog will cost \$0.0216 per card. Card cases at standard library

¹⁸ "Library Cost Accounting," *Library Quarterly*, VI (1936), 377.

supply house prices will cost \$0.004 per card, if one considers that only 66 per cent of the cards received are actually filed, or \$0.0027 a card if all the cards received are counted. It will cost the union catalog staff \$0.0115 per card to file the cards into the catalog and do whatever combining is necessary, and it will cost the union catalog approximately one-half cent per card to do a minimum amount of editing. When these several costs are added together, the unit cost of maintaining a regional union catalog is found to be \$0.0408 per card added to the catalog. This figure includes no allowance for the housing of the catalog, no allowance for incidental supplies that might be needed in the process of filing, and no allowance for the possible cost of transporting the cards from each library to the union catalog. It represents the cost of keeping the union catalog up to date, with no provision for service, beyond the checking of the union catalog by those individuals who visit the catalog in person.

THE COST OF COMPILING AND MAINTAINING A TYPICAL REGIONAL UNION CATALOG

The several unit costs discussed in this chapter can best be summarized by setting up a hypothetical union catalog of considerable size. The catalog selected may be said to include a group of libraries that contain 2,000,000 titles, or that have in their combined catalogs some 2,000,000 main entries.

TABLE 18
COMPARATIVE COSTS OF COMPILING A REGIONAL UNION CATALOG
OF 2,000,000 LOCATIONS AND 4,640,000 VOLUMES BY THE
DEXIGRAPH AND MICROPHOTOGRAPHIC METHODS

Item	Number of Cards	Dexigraph Method		Microphotographic Method	
		Cost per Card	Total Cost	Cost per Card	Total Cost
Photography	2,000,000	\$0.0316	\$ 63,200.00	\$0.0037	\$ 7,400.00
Typing	2,000,000			.0206	41,200.00
Proofreading	2,000,000			.0103	20,600.00
Stamping	2,000,000			.0013	2,600.00
Filing	2,000,000	.0070	14,000.00	.0070	14,000.00
Combining	2,000,000	.0028	5,600.00	.0028	5,600.00
Card cases	2,000,000	.0027 ^a	5,400.00	.0027 ^a	5,400.00
Space	2,000,000	.00125	2,500.00	.0025	5,000.00
Supplies	2,000,000	.00125	2,500.00	.0025	5,000.00
Editing	2,000,000	.0063	12,600.00	.0050	10,000.00
Total	2,000,000	\$0.0529	\$105,800.00	\$0.0584	\$116,800.00

^a666,000 cards (33.3 per cent) would be discarded as duplicates during the process of combining, thus reducing the unit cost per card by 33.3 per cent.

On the basis of the proportion of 2.32 volumes per title worked out in Table 36 on page 90 of Chapter IV, these libraries contain approximately

4,640,000 volumes. The several unit costs, and the resultant costs, for compiling a union catalog of this size are shown in Table 18. The figures are given both for the dexigraph method and the microphotographic method, principally to show the very slight real difference in the cost of compiling union catalogs by the two methods. Since the library symbol may be added to the dexigraph card photographically at the time it is made, the unit cost for stamping has been omitted for the dexigraph method. Since, however, the dexigraph cards are more difficult to correct in the process of editing, and present an additional problem in the process of combining, this unit cost of \$0.0013 for stamping in the microphotographic method has been added to the editorial cost in the dexigraph method. The use of the dexigraph in compiling a union catalog this size would save a little more than one-half cent per card, or \$11,000. In view of the additional difficulty of editing, revising, and servicing a catalog of dexigraph cards, it is indeed doubtful whether this apparent saving has any reality.

TABLE 19
ANNUAL COST OF MAINTAINING A REGIONAL UNION CATALOG
OF 2,000,000 LOCATIONS AND 4,460,000 VOLUMES

Item	Quantity*	Cost per Card	Total Cost
Cards	50,000	\$0.0216	\$1,080.00
Card cases	50,000	.0027	135.00
Filing	50,000	.0115	575.00
Editing	50,000	.0050	250.00
Total	50,000	\$0.0408	\$2,040.00

* Based on ratio of 25,000 accessions per 1,000,000 locations worked out in Chapter V, p.122.

The annual cost of maintaining this regional catalog of 2,000,000 locations is similarly analyzed in Table 19, and will be the same for either method of compilation. Photographic equipment is ordinarily available only on a rental basis, and no library or union catalog could afford to retain such equipment permanently for the sole purpose of supplying cards for the union catalog. The sum of the several items included in the table brings the annual cost of maintaining a regional union catalog of 2,000,000 locations to \$2,040. Of this amount, the cost of the cards is ordinarily borne by the participating libraries, and the union catalog must find funds only for the \$960 actually expended at the catalog itself. To this must be added an appropriate amount for providing adequate service to the individuals and libraries within the region, and to the libraries and union catalogs beyond the region that wish to benefit by the unique knowledge of regional library resources that the compilation and current maintenance of the union catalog has made possible.

DUPLICATING THE UNION CATALOG

One of the difficulties faced by the regional union catalog is that it ordinarily exists in one copy only, and only one library is able to command the unique advantages coincident with having a regional union catalog located within its walls. Its staff and clientele have easy access to a tool that other libraries can reach only by telephone, by mail, or by a personal visit. Since the cost of compiling and maintaining even one union catalog is thought to be high, there has been little question of actually compiling large regional union catalogs in duplicate. Precedent does exist, however, in the union catalogs of the Atlanta-Athens area, where duplicate catalogs are being constructed, and will be maintained at both Emory University Library in Atlanta and at the University of Georgia Library in Athens. Tentative plans for a union catalog in the deep South call for duplicate catalogs at Tulane University Library in New Orleans and at Louisiana State University Library in Baton Rouge. And the progress of the planning for a union catalog in Southern California is in a large measure dependent on discovering a method of locating the completed union catalog in each of three or more libraries. The demand for duplicate union catalogs is apparent, even if the necessity is not, but it is doubtful whether it is advisable or desirable to currently maintain more than one regional union catalog within a specific region.

Once the union catalog has reached completion, however, it is quite a simple matter to obtain duplicate copies of the catalog. These duplicates will not reflect additions to the catalog, but will constitute a thoroughly reliable index to the region's resources up to the date it was made. Reference may be made to the union catalog itself for current acquisitions, and the catalog can be copied again when such references become frequent enough to warrant the expense. This expense can be little or much, depending on the method of duplication that is chosen, as is shown in the analysis below.

Before the completed regional union catalog can be copied, it must be decided what is meant by completion. Except for the Denver and Georgia union catalogs, few regional union catalogs in the United States would be considered bibliographically correct enough to warrant duplication in their present form, and those in charge of the catalogs would undoubtedly insist on at least some editing before copying were begun. This process of editing the catalog up to an acceptable bibliographical standard is a costly one, and may in itself stand in the way of duplication. Just exactly how much editing would cost is unknown, and would vary a good deal from catalog to catalog, depending on the number of constituent libraries and the quality of their several catalogs.

The problem of editing was at one time carefully considered by Paul Vanderbilt, then Superintendent of the Philadelphia Union Catalogue, who worked out an estimate of \$90,000 for editing the (then) 2,500 trays in the

Philadelphia catalog. His plan covered a period of five years and involved maintaining cooperating staffs in Philadelphia and at the Union Catalog in Washington. This estimate brings the cost to \$36 per tray, or \$0.036 per card, a figure that seems high in itself, but which is quite reasonable when it is compared to the cost of original cataloging. Editing at this rate would delay the duplication of the catalog for at least five years, and although the rate of editing could probably be increased somewhat, there would in any case be considerable delay between the decision to duplicate a regional union catalog and the completion of the editing. After the editing is completed, or after it is decided that further editing of the catalog is not essential, one of several alternative procedures must be chosen.

One of the considerations involved in making this choice is the number of copies of the union catalog that will be needed. For certain methods of reproduction, the cost per copy decreases as the number of copies increases, and it may be possible to select a cheaper and more satisfactory method if the number of copies is known in advance. It is unlikely, however, that enough copies will be wanted to materially reduce the per-copy cost for the more expensive types of reproduction. For use within any one region, the number of copies needed would probably not exceed ten, and even if each regional union catalog were to have on file a copy of every other regional union catalog, the top number of copies would be no more than 25.

Before presenting Table 21, which shows the cost of reproducing a union catalog by several different methods, it is necessary to show how the unit cost for the microfilm method was derived. This analysis is given in Table 20, and is based on the costs that were worked out for the compilation of a union catalog. Reference to Table 11 on page 36 will reveal that the copying of a completed union catalog by the microfilm method is considerably lower than the cost of copying library catalogs in the process of compiling the union catalog. This is explained by a number of factors, the most important of which is that, since no problem of the selection of main entries from library catalogs is involved, the camera crew need contain only one person instead of three, and the actual photographing can be done twice as fast. Since there is no problem of moving the camera and crew from place to place, the miscellaneous charge set up to cover transportation may be omitted. The item of 10 per cent of salary expenses for supervision may also be too high for the copying of just one catalog in one location, but it has been retained to cover the very real cost of planning and promoting the project.

Looking now at Table 21, it is at once apparent that the microfilm method of reproducing a union catalog is by far the cheapest way of obtaining one or more copies. The cost per copy drops slightly as each copy is made, but the saving is not significant enough to defer reproduction of the catalog until a large number of libraries subscribe for copies. Difficulties with the

microfilm copy of the union catalog are twofold. One of them is the impossibility of interfiling additional cards into the catalog once it is copied—a not very serious matter, for it would cost more to produce and file the normal accessions of a union catalog of this size than it would to refilm the catalog once each year. The other is the trouble involved in referring to a catalog that exists in 300 separate units, each of which must be inserted into a

TABLE 20
UNIT COST OF COPYING A REGIONAL UNION CATALOG
BY THE MICROFILM AND DEXIGRAPH METHODS

	<i>Microfilm</i>	<i>Dexigraph</i>
Labor (8 hours at 50c an hour)	\$ 4.00	\$ 4.00
Supervision (at 10 per cent)	.40	.40
Film or stock (for 10,000 cards)	6.50	98.50
Camera rental (per day)	2.50	.25
Total	\$13.40	\$103.15
Unit cost	\$ 0.00134	\$ 0.01032

machine before it may be examined. Librarians are still of the opinion that this chore is much too troublesome, particularly when a long list is being checked, but the rapidity with which certain commercial and governmental agencies are able to refer to data in film form suggests that some library adjustment to the exigencies of film format is still in order. Certainly the mechanical difficulties of reference to microfilm should be weighed very carefully against the much higher costs of other forms of catalogs.

The microprint and printing processes have been inserted into the table merely for comparative purposes, since it is highly unlikely that enough subscriptions could be obtained to make either process practicable. The figures given for microprint are, in addition, somewhat hypothetical, since no such work has as yet been done by the Readex Microprint Corporation. The figures given here are based on a proposal to microprint the Library of Congress depository catalog if 100 subscriptions can be obtained at \$500 each. A catalog in microprint form has the same disadvantages as one on microfilm; it would be produced on 75,000 separate sheets, each of which must be placed in a reading machine for reference, and interfiling of new material would be impossible.

The figures given for printing are also based on the Library of Congress depository catalog, this time on a proposal to print the depository catalog by an offset process at \$500 if 500 subscriptions could be obtained.¹⁴ Although this estimate was made in 1937, and costs may have increased since then, the

¹⁴ Mentioned by Robert C. Binkley in his "Microcopying and Library Catalogs," *A.L.A. Bulletin*, XXXII (1938), 242.

cost figures given are still accurate enough to show that printing, even if the maximum of 25 subscriptions are obtained, would still be a good deal more expensive than microfilm. Reference to the catalog would be much easier than with microfilm, and probably easier than with the basic card catalog itself, but the same impossibility of interfiling new material would obtain.

From among the other three methods of reproducing a regional union

TABLE 21
COST OF DUPLICATING A REGIONAL UNION CATALOG OF
1,334,000 CARDS BY EACH OF SIX METHODS

<i>Method of Duplication</i>	<i>Unit Cost</i>	<i>Cost of Duplicating Catalog of 1,334,000 Cards</i>			
		<i>1 Copy</i>	<i>Each of 2 Copies</i>	<i>Each of 10 Copies</i>	<i>Each of 25 Copies</i>
Microfilm					
First copy ^a	\$0.00134	\$ 1,788	\$ 1,361	\$ 1,019	\$ 968
Each extra copy ^b	.0007				
Microprint ^c	.033	44,022	22,011	4,402	1,761
Printing ^d	.166	221,444	110,722	22,144	8,858
Dexigraph					
Local labor ^a	.01032	13,767	13,767	13,767	13,767
Regular contract	.03	40,020	40,020	40,020	40,020
Microfilm prints					
First copy ^e	.01784	23,798	22,904	22,190	22,082
Each extra copy	.0165				
Typing ^f	0.0216	28,814	28,814	28,814	28,814

^a See Table 20, Chapter III, p.55 for analysis of this figure.

^b Based on cost of \$0.035 a foot for positive copy.

^c Based on proposal of Readex Microprint to publish Library of Congress Depository Catalog of 1,500,000 cards at \$500 if 100 subscriptions are in hand. Since unit cost is based on 100 copies, other figures are somewhat too high.

^d Based on proposal to publish Library of Congress Depository Catalog of 1,500,000 cards at \$500 if 500 subscriptions were in hand. Since unit cost is based on 500 copies, other figures are somewhat too high.

^e Based on estimate of \$0.0165 per card for printing from microfilm furnished by John K. Boeing of the Recordak Corporation, plus the cost of \$0.00134 per card for microfilming derived in Table 20.

^f See Table 16, Chapter III, p.48 for analysis of this figure.

catalog, the choice is in large part determined by the several costs. Microfilm prints are reasonably satisfactory so far as visibility is concerned, but have the disadvantage of being very light in weight and consequently somewhat difficult to use. Dexigraph cards more nearly resemble a standard catalog card, in weight if not in quality, but as with microfilm prints, corrections and additions are difficult to make. The figure of \$14,000 for dexigraphing a catalog with local labor is derived from correspondence with the Library Bureau of Remington Rand which gives the basic costs used in Table 20. No library has as yet had experience with this arrangement, but if it is practicable, the saving with dexigraph over the use of microfilm prints would probably outweigh the fact that the dexigraph produces a negative card.

IN SUMMARY

It is now possible to answer with some objectivity the questions raised at the beginning of this chapter. If the regional union catalog is compiled by

the microfilm method, it will cost not more than six cents per title to compile. Each additional title that is added to it will cost slightly more than four cents, this cost being almost evenly distributed between the library that prepares the cards and the union catalog that files them. For a union catalog that includes a group of libraries holding 4,640,000 volumes and whose catalogs contain approximately 2,000,000 main entries, the total cost by the microphotographic method is approximately \$116,800. With the dexigraph method the unit cost is little more than five and one-half cents per title, and the total cost is \$105,800. If additional copies of the completed catalog are desired, one copy can be obtained on microfilm for \$1,788, and ten copies may be had for \$1,019 each. This union catalog will cost a little more than \$2000 to maintain up to the point of service, of which amount slightly more than \$1000 is contributed by the participating libraries in the form of cards supplied to the catalog.

These figures may be said to represent the minimum cost of setting up a regional union catalog. The compilation cost includes only a minimum amount of editing, a great deal more of which will make the catalog a much more reliable instrument. No allowance has here been made for the bibliographic collection that should be at hand at the union catalog, and no consideration has been given to the service of the union catalog beyond mere maintenance of the file. Analysis of the cost of providing personnel and equipment for servicing the union catalog, more properly finds its place in the section devoted to the use of the union catalog. The service of the union catalog may vary from the mere location of items for mail, telephone, and personal inquirers to a complete bibliographic and cooperative library service, the like of which has not yet been developed by an American union catalog.

CHAPTER 4: *Resources of American Libraries:* *A Quantitative Picture*

BEFORE PROCEEDING FROM THE DISCUSSION OF THE ORGANIZATION, ADMINISTRATION, and cost of the regional union catalog to a description of the regional pattern formed by existing union catalogs and the resources they include, it is necessary and desirable to describe in as much detail as possible the resources of American libraries. Much such description has already been accomplished for individual libraries such as Harvard,¹ Chicago,² and Pennsylvania,³ for localities such as Providence⁴ and Philadelphia,⁵ and for whole regions such as the South.⁶ Although necessarily somewhat quantitative in nature, these surveys have been primarily interested in the qualitative description of library materials. They have sought to describe kinds of material, the amount of material available in certain specific and general subjects, and have in many cases listed specific titles to show the nature of the collection under examination. Their objectives have been chiefly concerned with informing scholars and other interested individuals of the location of materials for research, and, in some cases, with informing librarians of lacunae that could well be filled. Emphasis has been on the availability of materials for specific research, rather than on the general availability of research materials in American libraries.

It is this general availability of research materials which will be analyzed in this chapter. The analysis is quantitative in nature and aims to count the number of books held by American libraries, to discover the extent to which these books are duplicated in libraries and in union catalogs, and to show their present and potential inclusion in the Library of Congress Union Catalog. The phrase, "research materials," is used here almost without definition, for it includes all materials held by American libraries that are listed in their catalogs. No differentiation is made between items on any basis of quality

¹ A. C. Potter, *Library of Harvard University* (Cambridge: Harvard University Press, 1934).

² M. L. Raney, *The University Libraries* (Chicago: University of Chicago Press, 1938).

³ Bibliographical Planning Committee of Philadelphia, *A Faculty Survey of the University of Pennsylvania Libraries* (Philadelphia: University of Pennsylvania Press, 1940).

⁴ Claire G. Faris, "Survey of Library Resources in Providence," 1936 (unpublished).

⁵ Bibliographical Planning Committee of Philadelphia, *Philadelphia Libraries and Their Holdings* (Philadelphia: University of Pennsylvania Press, 1941).

⁶ R. B. Downs, ed., *Resources of Southern Libraries* (Chicago: American Library Association, 1938).

or applicability to research needs. The whole field of published knowledge, together with some manuscript material, particularly American theses, is studied as a unit, each item being given the same numerical value as every other item.

Since the sheer number of individual titles in American libraries is much too great to make a direct count of such titles possible, it was necessary to choose a sample that could be conveniently transported and tabulated and which would provide results substantially as accurate as an actual count of the whole number of items actually existing in American libraries. The sample was chosen from the Library of Congress Union Catalog because it is the largest single catalog in the United States and could provide more titles for the basic sample than any other catalog. It was decided to use a sample of about 3000 cards because they could be easily transported, and because they could be checked with most libraries in a normal working day.

The selection of the specific sections of the alphabet from which to choose the sample was more difficult, for it seemed unsafe to assume that any one section of the alphabet would be representative of the alphabet as a whole, in terms of the proportion of foreign titles, a fair representation of all subject matter, and a fair showing for all of the libraries with which it would be checked. In the checking of the Philadelphia union catalog with the Library of Congress Union Catalog, a tray by tray analysis of 93 trays showed that the per cent of new titles in each tray varied from 25 to 65, with the average at 36. Had any tray but those whose per cent of duplication fell at the average of 36 been chosen as a sample in measuring the amount of duplication between these two union catalogs, the results would have been more or less erroneous—perhaps as much as 30 per cent. Since this information was available, it would have been possible to select that section of the alphabet corresponding to a tray whose per cent of duplication was identical with the average per cent of 36. This would probably have been reliable enough, but since the 93 trays covered only the letter A and a portion of the letter B, there could be no assurance that the “average” tray represented more of the alphabet than the sections of A and B from which the average was drawn. In addition, there could be no assurance that the pattern of duplication obtaining between the union catalogs in Philadelphia and Washington would be comparable to that existing between some other catalog and the Washington union catalog, or between two other library or union catalogs.

No method of selection could be found that could be proved statistically reliable before all of the libraries to be included in the study had been checked, so it was necessary to make the selection in the manner that seemed most likely to prove reliable when a statistical check became possible. The method chosen involved selecting approximately 100 cards from each letter of the alphabet except X. Twenty-five small samples seemed much more

likely to represent all of the possible variations in the union catalog than a smaller number of samples with more cards in each sample. In order to avoid unconscious selection of "easy" portions of the alphabet, the 100 cards were chosen in an entirely mechanical manner by taking the first 100 cards in the middle tray of each letter of the alphabet. Two or three exceptions were made to this rule to avoid concentrations of corporate entries, but when this was necessary, the 100 cards were still mechanically chosen from the beginning of the tray either preceding or succeeding the middle tray for that letter.

The 25 individual samples so chosen contained a total of 3,156 cards, 711 of which were discarded as not being applicable to the problem. One hundred and fifty-six of these were analytics and added entries, which, theoretically, have no place in a union catalog. There is no objection to their being there, since they do increase the bibliographical resources of the catalog, but since library policies in making these entries vary so greatly, they could not be fairly included in an analysis of titles held by American libraries. Another 168 cards were cross references, and were excluded because in themselves they do not represent titles. The other 387 cards were duplicates of others in the sample. All duplicates are theoretically eliminated from the Union Catalog in the process of filing, but it is the policy of the Union Catalog to retain all cards that are not absolutely identical. The staff necessary to verify all possible duplicates is not available, and cards only slightly variant must be retained to avoid the possibility of discarding cards for unique books not otherwise represented in the catalog. To have included all of these cards in the sample, however, would have padded it unnecessarily, and would have given an inflated impression of the quantitative resources of American libraries. Consequently all duplicate cards on which the information did not conflict with that on another card were eliminated. The sample was thus reduced in size to 2,445 cards. In the process of editing the sample, and in the subsequent process of checking the catalog with library and union catalogs, different editions were regarded as separate works, and the term "title" must therefore be taken to mean "titles and editions" throughout this analysis.

EXPANSION OF THE LIBRARY OF CONGRESS UNION CATALOG

It is now possible to present Table 22 which shows in general terms the relation of the sample to the Library of Congress Union Catalog. At the end of June 1940, 10,701,284 cards had been filed into the Union Catalog.⁷ The Director of the Union Catalog has found that about 25 per cent⁸ of the cards

⁷ *Annual Report of the Librarian of Congress . . . 1940* (Washington: Government Printing Office, 1941), p.542.

⁸ Letter from George A. Schwegmann, Jr., dated January 6, 1941.

filed are discarded as duplicates, leaving a total of 8,025,963 cards in the Union Catalog. These 8,000,000 cards are represented by the gross sample of 3,156 cards taken from the Union Catalog. If the Union Catalog were to be reduced by the same proportion as the sample was reduced by the same three categories of cards which in the sample numbered 711, the Union Catalog would contain 6,217,832 cards. This figure of 6,217,832 titles represents the approximate number of separate, distinct bibliographical items recorded in the Union Catalog when the sample was drawn in October 1940.

TABLE 22

RELATION OF SELECTED SAMPLE TO PRESENT AND POTENTIAL RESOURCES
OF THE LIBRARY OF CONGRESS UNION CATALOG

	<i>Cards in Sample</i>	<i>Ratio between Sample and Library of Congress Union Catalog</i>	<i>Present and Potential Cards in Union Catalog</i>
Gross sample	3,156	2,543.08:1	8,025,960
Extraneous cards	711	2,543.08:1	1,808,130
Net sample	2,445	2,543.08:1	6,217,831
Cards added by other catalogs	1,237	2,543.08:1	3,145,790
Total sample	3,682	2,543.08:1	9,363,620

After an arbitrary symbol was assigned to each library chosen for comparison with the sample, the titles in the sample were searched in each library catalog. The library's symbol was placed on the back of each card in the sample representing a book it owned. No entry was made on those titles in the sample that the library did not own. When titles were found in the library that did not occur in the sample, they were copied immediately and filed into the sample before the next library was checked. Thus the sample grew constantly as progress was made from library to library. When the sample had been checked with 88 library and union catalogs, 1,237 titles had been found that were not in the original sample of 2,445 cards, or an increase of 50.59 per cent. If it is assumed that the sample is a valid indication of the holdings of the Library of Congress Union Catalog, and of the libraries with which it was checked, the Library of Congress Union Catalog would be increased by 50.59 per cent, or 3,145,601 titles, if these 88 library and union catalogs reported their entire holdings to the Library of Congress Union Catalog. Forty-one additional libraries, which were checked after these computations were completed, revealed 167 more titles not previously found. These 167 titles represent 4.54 per cent of the total sample of 3,682 titles, and would increase the Library of Congress Union Catalog by another 425,108 titles if the 41 libraries were to be added also. The small number of additional new titles added by these 41 libraries suggests that the previous total of 9,363,622 titles would have been increased very slightly by the addi-

tion of any one other library, since each of them would have added an average of only one tenth of one per cent of additional titles—a comparatively insignificant number. If the 425,108 additional titles are added to the previous total, the result, 9,788,730 titles, would represent a fair approximation of the number of separate titles held by the libraries of the United States. Since the 129 libraries that have been checked include all of the largest and most important general libraries, as well as a goodly number of special libraries, in the United States, it is extremely unlikely that any other library would add more new titles to this total of about 10,000,000 than the one tenth of one per cent added by each of the last 41 libraries checked. It is evident that the percentage of new titles which would be added if a number of libraries were to report their complete holdings, would decrease rapidly as the holdings of each library were added. This trend is given tabular presentation below, following a discussion of the sample.

A list of the libraries and union catalogs checked with the sample is given in Table 23. The list is arranged according to state and place to facilitate reference to a particular library or to the comparative showing of two or more libraries. The first column shows the number of titles in the sample found in each library, and the second column shows the number of titles in each library not recorded in the Library of Congress Union Catalog. The third column represents the probable number of titles which would be added to the Library of Congress Union Catalog if that library reported its entire holdings to the Union Catalog—assuming that none of the other libraries did likewise. This figure is derived from the fact that the sample of 2,445 cards represents exactly 1/2543.08 of the 6,217,832 titles found to be in the Library of Congress Union Catalog when the sample was drawn. Thus, each additional card added to the sample represents 2,543.08 titles not in the Library of Congress Union Catalog.

Were it possible to obtain from most libraries a statement of the number of titles they hold, the validation of the sample would involve the comparatively simple matter of expecting the sample to rank the group of libraries checked in very nearly the same order as they would be ranked by the titles they actually hold. Title statistics, however, are largely unavailable, and it is necessary to use the next best quantitative measure of libraries—the number of volumes they hold. The use of this measure is based on the assumption that the size of a library in volumes is directly proportionate to the size of the same library in titles. That is, the more books a library has, the more different books it has. This assumption may in general be admitted, especially if care is taken to apply it to groups of the same kind of libraries. The ratio of volumes to titles is higher in public libraries which duplicate a few books widely than it is in academic libraries where there is considerably less duplication.

TABLE 23

TITLES THAT 129 LIBRARIES CHECKED WITH BASIC SAMPLE OF 2,445 TITLES
 DRAWN FROM LIBRARY OF CONGRESS UNION CATALOG WOULD ADD TO THE
 UNION CATALOG IF THEIR COMPLETE HOLDINGS WERE RECORDED

<i>State Place</i>	<i>Library</i>	<i>Titles in Ex- panded Sample of 3,682 Cards</i>	<i>Titles Not in Basic Sample</i>	<i>Titles in Library Not in Library of Congress Union Catalog</i>
ARKANSAS Fayetteville	University of Arkansas Library	38	1	2,543
CALIFORNIA Berkeley	University of California Library	314	52	132,240
Los Angeles	Los Angeles Public Library	147	23	58,491
	University of California at Los Angeles Library	111	22	55,948
Sacramento	University of Southern California Library	59	16	40,689
	California State Library	89	8	20,345
San Francisco	California State Union Catalog	255	31	78,835
	California State Library, Sutro Branch	5	2	5,086
	San Francisco Public Library	84	12	30,517
San Marino	Henry E. Huntington Library	72	8	20,345
Stanford University	Stanford University Libraries	198	20	50,862
COLORADO Boulder	University of Colorado Library	84	12	30,517
Denver	Bibliographical Center for Research of the Rocky Mountain Region	116	19	48,318
	Denver Public Library	74	2	5,086
Fort Collins	Colorado State College of Agriculture and Mechanic Arts Library	11	4	10,172
Greeley	Colorado State College of Education Library	23	1	2,543
CONNECTICUT New Haven	Yale University Library	570	98	249,222
DISTRICT OF COLUMBIA Washington	Catholic University of America Library	56	15	38,146
	Public Library of the District of Columbia	80	7	17,802
	Union Catalog of Railway Economics	9	3	7,629
GEORGIA Emory University	Emory University Library	35	9	22,888
ILLINOIS Chicago	Chicago Public Library	122	32	81,378
	John Crerar Library	158	3	7,629
	Loyola University Library	2	1	2,543
	Newberry Library	150	11	27,974
	University of Chicago Library	413	57	144,956
Evanston	Northwestern University Library	124	25	63,577
Urbana	University of Illinois Library	248	37	94,094

UNION CATALOGS IN THE UNITED STATES

TABLE 23—Continued

<i>State Place</i>	<i>Library</i>	<i>Titles in Ex- panded Sample of 3,682 Cards</i>	<i>Titles Not in Basic Sample</i>	<i>Titles in Library Not in Library of Congress Union Catalog</i>
INDIANA Bloomington	Indiana University Library	81	12	30,517
IOWA Ames Iowa City	Iowa State College Library Iowa State University Libraries	54 129	6 19	15,258 48,318
KANSAS Lawrence	University of Kansas Library	74	9	22,888
KENTUCKY Lexington	Kentucky University Library Union Catalog of American History	44 1	5 0	12,715 0
LOUISIANA New Orleans	Howard Memorial Library New Orleans Public Library Newcomb Memorial College Library Tulane University Library Louisiana State University Library	22 42 14 38 55	3 4 2 4 7	7,629 10,172 5,086 10,172 17,802
MARYLAND Baltimore	Enoch Pratt Free Library Johns Hopkins University Library Welch Medical Library	137 150 20	18 20 4	45,775 50,862 10,172
College Park	University of Maryland Library	21	0	0
MASSACHUSETTS Boston	American Academy of Arts and Sciences Library Boston Athenaeum Library Boston Medical Library Boston Public Library Congregational Library General Theological Library Massachusetts Historical Society Library Massachusetts Horticultural Society Li- brary Massachusetts State Library Museum of Fine Arts Library New England Historic Genealogical So- ciety Library New England Museum of Natural History Library Social Law Library Harvard University Library Massachusetts Institute of Technology Boston College Library Clark University Library	3 136 23 425 26 14 130 6 47 5 10 24 10 913 61 30 39	1 29 23 47 2 1 17 0 5 2 1 7 1 107	2,543 73,749 58,491 119,525 5,086 2,543 43,232 0 12,715 5,086 2,543 17,802 2,543 272,110 58,491 10,172 17,802
Cambridge				
Chestnut Hill Worcester				

TABLE 23—Continued

<i>State Place</i>	<i>Library</i>	<i>Titles in Ex- panded Sample of 3,682 Cards</i>	<i>Titles Not in Basic Sample</i>	<i>Titles in Library Not in Library of Congress Union Catalog</i>
MICHIGAN Ann Arbor Detroit	University of Michigan Library Detroit Public Library	260 126	38 17	96,637 43,232
MINNESOTA Minneapolis	University of Minnesota Library	172	14	35,603
MISSOURI Columbia St. Louis	University of Missouri Library St. Louis Public Library Washington University Library	95 168 52	9 34 5	22,888 86,465 12,715
NEBRASKA Lincoln	Nebraska Union Catalog University of Nebraska Library	206 74	39 13	99,180 33,060
	Omaha Municipal University Library Omaha Public Library	9 37	1 5	2,543 12,715
NEW HAMPSHIRE Concord	New Hampshire State Library Union Catalog of Accessions Since 1938; Union Catalog of Foreign Books; Union Catalog of Music	30	3	7,629
	Dartmouth College Library	120	11 28	27,974 71,206
NEW JERSEY New Brunswick Princeton	Rutgers University Library Princeton University Library	57 251	7 26	17,802 66,120
NEW YORK Buffalo	Buffalo Public Library Grosvenor Library	100 102	15 9	38,146 22,888
	Mount Vernon Public Library Columbia University Library	32 367	4 62	10,172 157,671
	Engineering Societies Library Hispanic Society Library	18 25	9 6	22,888 15,258
	New York Historical Society Library New York Public Library Circulation De- partment	54 130	4 37	10,172 94,094
	New York Public Library Reference De- partment	774	57	144,956
	New York University Library	112	22	55,948
	Scandinavian Union Catalog	9	2	5,086
	Union Catalog of Art Books in New York City	13	6	15,258
Rochester White Plains	University of Rochester Library Westchester Library Association Union Catalog	88	16	40,689
Yonkers	Yonkers Public Library	80 11	14 0	35,603 0

UNION CATALOGS IN THE UNITED STATES

TABLE 23—Continued

<i>State Place</i>	<i>Library</i>	<i>Titles in Ex- panded Sample of 3,682 Cards</i>	<i>Titles Not in Basic Sample</i>	<i>Titles in Library Not in Library of Congress Union Catalog</i>
NORTH CAROLINA Chapel Hill	North Carolina Union Catalog	116	17	43,232
Durham	University of North Carolina Library Duke University Library	89 152	13 19	33,060 48,318
OHIO				
Akron	Akron Public Library	23	1	2,543
Cincinnati	Cincinnati Public Library	100	36	91,551
Cleveland	University of Cincinnati Libraries Cleveland Public Library	46 203	4 33	10,172 83,922
Columbus	Cleveland Regional Union Catalog Ohio State University Library	648 114	150 23	381,462 58,491
Oberlin	Ohio Union Catalog Oberlin College Library	402 131	100 23	254,308 58,491
OKLAHOMA Oklahoma City	Union Catalog of Books About Oklahoma	9	2	5,086
OREGON				
Corvallis	Union Catalog of the Oregon State Sys- tem of Higher Education	124	29	73,749
Portland	Library Association of Portland	72	17	43,232
Salem	Oregon State Library	100	33	83,922
PENNSYLVANIA				
Bethlehem	Lehigh University Library	53	5	12,715
Bryn Mawr	Bryn Mawr College Library	46	5	12,715
Harrisburg	Pennsylvania State Library	39	2	5,086
Lancaster	Franklin and Marshall College Library	24	1	2,543
Philadelphia	Temple University Library	39	3	7,629
	Union Library Catalogue of the Phila- delphia Metropolitan Area	699	186	473,013
Pittsburgh	University of Pennsylvania Library	224	45	114,439
State College	University of Pittsburgh Library	31	4	10,172
	Pennsylvania State College Library	46	5	12,715
RHODE ISLAND Providence	Brown University Library	246	16	40,689
	Union Catalog of Providence Libraries	323	29	73,749
SOUTH CAROLINA Clinton	Union Catalog of South Caroliniana	2	0	0
TENNESSEE Nashville	Union Catalog of Libraries in Nashville	115	12	30,517
TEXAS Austin	Union Catalog of Texas and Southwestern History University of Texas Library	6 160	1 17	2,543 43,232

TABLE 23—Continued

<i>State Place</i>	<i>Library</i>	<i>Titles in Ex- panded Sample of 3,682 Cards</i>	<i>Titles Not in Basic Sample</i>	<i>Titles in Library Not in Library of Congress Union Catalog</i>
VIRGINIA Charlottesville	University of Virginia Library	85	7	17,802
WASHINGTON Seattle	Seattle Public Library Union Catalog of Pacific Northwest Americana University of Washington Library	86 7 75	12 2 8	30,517 5,086 20,345
WISCONSIN Madison Milwaukee	University of Wisconsin Library Wisconsin State Historical Society Library Milwaukee Public Library	150 59 137	25 18 16	63,577 45,775 40,689
CANADA				
ONTARIO Toronto	Toronto University Library	116	23	58,491
QUEBEC Montreal	McGill University Library	100	20	50,862

It should, then, be reasonable to expect the sample to rank the libraries by title in approximately the same order as they are ranked by their size in volumes. One cannot expect the correspondence to be as great as it theoretically should be if titles were being ranked with titles, for individual library policies will vary the ratio between titles and volumes a good deal. However, some degree of positive correlation would seem likely. Taking the list of libraries checked, and selecting from it the 46 libraries which are members of the Association of Research Libraries and therefore comparable in type and purpose, it is possible to rank these by their size in volumes and by their holdings of titles in the sample, and to apply the Spearman rank-order correlation. When this is done the measure of correlation is found to be a positive .90. When this correlation technique is applied to the first group of 88 libraries of all kinds and sizes, including 11 union catalogs, the measure of correlation is a positive .92. Both of these correlations are high, and make it possible to conclude that the sample is a reasonably reliable measure of the title holdings of American libraries, if it is assumed that the size of libraries in volumes is directly related to the size of libraries in titles.

UNION CATALOGS IN THE UNITED STATES

It is now possible to show the rate at which the Library of Congress Union Catalog would increase in size if the complete holdings of a number of other libraries were added to it. This is shown in Table 24 in which the same 46 members of the Association of Research Libraries have been subjected to specific analysis. The libraries are this time arranged in descending order according to the total number of titles each held in the expanded sample of 3,682 cards. This arrangement was chosen in order to place the libraries in order according to the number of titles they hold. The figure given in Column 1 shows the number of titles each library added to the basic sample of 2,445 titles after the holdings of all of the previous libraries in the list had

TABLE 24

CUMULATIVE INCREASE IN THE LIBRARY OF CONGRESS UNION CATALOG IF
THE HOLDINGS OF FORTY-SIX MEMBERS OF THE ASSOCIATION OF
RESEARCH LIBRARIES WERE RECORDED IN IT^a

<i>Library</i>	<i>Titles Added</i>	<i>Cumulative Titles</i>	<i>Per Cent of Previous Total Added by Each Library</i>	<i>Cumulative Titles in Library of Congress Union Catalog as Each Library Is Added</i>
Library of Congress Union Catalog	2,445	2,445		6,217,831
Harvard University Library	98	2,543	4.00	6,467,052
New York Public Library	50	2,593	1.97	6,594,206
Yale University Library	95	2,688	3.66	6,835,799
Boston Public Library	39	2,727	1.45	6,934,979
University of Chicago Library	52	2,779	1.91	7,067,219
Columbia University Library	50	2,829	1.80	7,194,373
University of California Library	32	2,861	1.13	7,275,752
University of Michigan Library	13	2,874	0.45	7,308,812
Princeton University Library	16	2,890	0.56	7,349,501
University of Illinois Library	24	2,914	0.83	7,410,535
Brown University Library	7	2,921	0.24	7,428,337
University of Pennsylvania Library	25	2,946	0.86	7,491,914
Stanford University Library	10	2,956	0.34	7,517,344
University of Minnesota Library	2	2,958	0.68	7,522,431
University of Texas Library	14	2,972	0.47	7,558,034
John Crerar Library	1	2,973	0.03	7,560,577
Duke University Library	3	2,976	0.10	7,568,206
University of Wisconsin Library	12	2,988	0.40	7,598,723
Johns Hopkins University Library	10	2,998	0.33	7,624,154
Newberry Library	5	3,003	0.17	7,636,869
Iowa State University Library	16	3,019	0.53	7,677,558
Northwestern University Library	8	3,027	0.26	7,697,903
Dartmouth College Library	0	3,027	0.00	7,697,903
University of Toronto Library	2	3,029	0.07	7,702,989
Ohio State University Library	13	3,042	0.43	7,736,049
University of California at Los Angeles Library	13	3,055	0.43	7,769,109
Grosvenor Library	5	3,060	0.16	7,781,825
McGill University Library	2	3,062	0.06	7,786,911

TABLE 24—Continued

<i>Library</i>	<i>Titles Added</i>	<i>Cumulative Titles</i>	<i>Per Cent of Previous Total Added by Each Library</i>	<i>Cumulative Titles in Library of Congress Union Catalog as Each Library Is Added</i>
University of Missouri Library	0	3,062	0.00	7,786,911
University of North Carolina Library	8	3,070	0.26	7,807,256
University of Rochester Library	0	3,070	0.00	7,807,256
New York University Library, Washington Square	6	3,076	0.20	7,822,514
University of Virginia Library	2	3,078	0.06	7,827,600
Indiana University Library	0	3,078	0.00	7,827,600
University of Washington Library	3	3,081	0.10	7,835,229
University of Nebraska Library	5	3,086	0.16	7,847,945
University of Kansas Library	2	3,088	0.06	7,853,031
Huntington Library	3	3,091	0.10	7,860,660
Massachusetts Institute of Technology Library	19	3,110	0.61	7,908,979
Catholic University of America Library	1	3,111	0.03	7,911,522
Louisiana State University Library	5	3,116	0.16	7,924,237
Iowa State College Library	2	3,118	0.06	7,929,323
Washington University Library	1	3,119	0.03	7,931,866
University of Cincinnati Library	0	3,119	0.00	7,931,866
Clark University Library	1	3,120	0.03	7,934,410
Engineering Societies Library	5	3,125	0.16	7,947,125
Total cumulation	3,125	3,125		7,947,125

^aArranged in descending order according to the total number of titles each held in the expanded sample of 3,682 cards. This places the libraries in order according to their holdings in titles.

been checked. The cumulative growth of the sample is shown in Column 2, and Column 3 shows the per cent of all the titles previously added that each library added to the sample. In Column 4 the data in the previous three columns are related to the Union Catalog as a whole by multiplying the titles in the sample by the factor 2543.08, which represents the extent to which the Union Catalog is larger than the sample. The total figures show that these 46 libraries added 680 titles to the sample, and that the addition of the entire holdings of these libraries to the Library of Congress Union Catalog would bring the number of titles in the Catalog to 7,947,125. It is interesting to note that after the first seven libraries were checked with the sample, each additional library added less than one per cent to the total number of titles in the sample at that point in the checking process. Similarly, if these libraries were actually to be checked with the Union Catalog, the eighth library, and each library thereafter, would increase the number of titles in the Union Catalog by less than one per cent.

Seventeen regional union catalogs are now in existence or in compilation. Since all of them record the holdings of more than one library, it should be to the advantage of the Library of Congress Union Catalog to have the hold-

UNION CATALOGS IN THE UNITED STATES

ings of these regional union catalogs recorded in the Union Catalog—perhaps before some of the individual libraries are so recorded. For this reason the information given in Table 24 was retabulated to place the 11 union catalogs which it was possible to check before the list of the members of the Association of Research Libraries. The union catalogs also are arranged in descending order according to the total number of titles each held in the expanded sample. The libraries have retained that same arrangement, and those which are included in one of the union catalogs have been deleted, for all of their holdings would be reported to the Library of Congress Union Catalog through a regional union catalog. The results of this tabulation are shown in Table 25.

TABLE 25

CUMULATIVE INCREASE IN THE LIBRARY OF CONGRESS UNION CATALOG IF THE HOLDINGS OF ELEVEN UNION CATALOGS AND THIRTY-NINE MEMBERS OF THE ASSOCIATION OF RESEARCH LIBRARIES WERE ADDED TO IT^a

<i>Library or Union Catalog</i>	<i>Titles Added</i>	<i>Cumulative Titles</i>	<i>Per Cent of Previous Total Added by Each Catalog or Library</i>	<i>Cumulative Titles in Library of Congress Union Cata- log as Each Catalog or Library Is Added</i>
Library of Congress Union Catalog	2,445	2,445		6,217,831
Union Library Catalogue of the Philadelphia Metropolitan Area	189	2,634	7.73	6,698,473
Cleveland Regional Union Catalog	137	2,771	5.20	7,046,875
Ohio Union Catalog	42	2,813	1.52	7,153,684
Union Catalog of Providence Libraries	17	2,830	0.60	7,196,916
California State Union Catalog	27	2,857	0.95	7,265,579
Nebraska Union Catalog	23	2,880	0.80	7,324,070
Union Catalog of the Oregon State System of Higher Education	20	2,900	0.69	7,374,932
Bibliographical Center for Research of the Rocky Mountain Region	12	2,912	0.41	7,405,449
North Carolina Union Catalog	13	2,925	0.45	7,438,509
Union Catalog of Libraries of Nashville	6	2,931	0.20	7,453,767
Westchester Library Association Union Catalog	7	2,938	0.24	7,471,569
Harvard University Library	82	3,020	2.79	7,680,102
New York Public Library	40	3,060	1.32	7,781,825
Yale University Library	76	3,136	2.48	7,975,099
Boston Public Library	28	3,164	0.89	8,046,305
University of Chicago Library	36	3,200	1.14	8,137,856
Columbia University Library	42	3,242	1.31	8,244,665
University of California Library	23	3,265	0.71	8,303,156
Princeton University Library	14	3,279	0.43	8,338,759
University of Illinois Library	22	3,301	0.67	8,394,707
Stanford University Library	6	3,307	0.18	8,409,965

TABLE 25—Continued

<i>Library or Union Catalog</i>	<i>Titles Added</i>	<i>Cumulative Titles</i>	<i>Per Cent of Previous Total Added by Each Catalog or Library</i>	<i>Cumulative Titles in Library of Congress Union Cata- log as Each Catalog or Library Is Added</i>
University of Minnesota Library	1	3,308	0.03	8,412,509
University of Texas Library	12	3,320	0.36	8,443,026
John Crerar Library	1	3,321	0.03	8,445,569
University of Wisconsin Library	12	3,333	0.36	8,476,085
Johns Hopkins University Library	10	3,343	0.30	8,501,516
Newberry Library	3	3,346	0.09	8,509,146
Iowa State University Library	13	3,359	0.39	8,542,205
Northwestern University Library	8	3,367	0.24	8,562,550
Dartmouth College Library	0	3,367	0.00	8,562,550
University of Toronto Library	0	3,367	0.00	8,562,550
University of California at Los Angeles Library	7	3,374	0.21	8,580,352
Grosvenor Library	3	3,377	0.09	8,587,981
McGill University Library	0	3,377	0.00	8,587,981
University of Missouri Library	0	3,377	0.00	8,587,981
University of North Carolina Library	4	3,381	0.12	8,598,153
University of Rochester Library	0	3,381	0.00	8,598,153
New York University Library, Wash. Square	0	3,381	0.00	8,598,153
University of Virginia Library	1	3,382	0.03	8,600,696
Indiana University Library	0	3,382	0.00	8,600,696
University of Washington Library	3	3,385	0.09	8,608,326
University of Kansas Library	0	3,385	0.00	8,608,326
Huntington Library	1	3,386	0.03	8,610,869
Massachusetts Institute of Technology Library	18	3,404	0.53	8,656,644
Catholic University of America Library	1	3,405	0.03	8,659,187
Louisiana State University Library	5	3,410	0.15	8,671,903
Iowa State College Library	0	3,410	0.00	8,671,903
Washington University Library	0	3,410	0.00	8,671,903
Clark University Library	0	3,410	0.00	8,671,903
Engineering Societies Library	7	3,417	0.20	8,689,704
Total cumulation	3,417	3,417		8,689,704

^aArranged in descending order according to the total number of titles each held in the expanded sample of 3,682 cards. This places the libraries and union catalogs in order according to their holdings in titles.

Here it is seen at once that only three of the union catalogs would add more than one per cent new titles to the Union Catalog. The additions that would be made by the 39 libraries to the Union Catalog after all of the holdings of the union catalogs had been entered are smaller in numbers and per cent, but the point at which the percentage of new titles added falls below one is nearly the same—that is, after six libraries have been added. The 11 union catalogs alone would add 1,253,738 titles to the Union Catalog, and the 39 members of the Association of Research Libraries would add 1,218,135 titles more, to make a total of 2,471,873 titles. This is a good many titles and represents an increase of 39.75 per cent over the number of titles now

located in the Union Catalog. Only three union catalogs and five libraries, however, would add more than one per cent new titles if they were checked with the Union Catalog in the order given; all of the others would reveal less than one per cent new titles—many of them less than one tenth of one per cent.

This list of union catalogs and research libraries includes all of the important general libraries in the United States, many special libraries, the entire library resources of Philadelphia and Cleveland, and most of the library resources of the states of Rhode Island, Ohio, and Nebraska. All together, these libraries hold 2,471,873 titles not yet recorded in the Library of Congress Union Catalog. Sixty other miscellaneous libraries checked revealed another 1,098,836 titles not in the Union Catalog, to make a total of 3,570,709 titles in these 500 American libraries not yet recorded in the Library of Congress Union Catalog. Tables 24 and 25 show that when even a small group of these libraries and union catalogs are successively added to the Union Catalog, the percentage of new titles found in each library quickly drops below one—a point which might be described as the point of diminishing returns, after which it would be unprofitable to attempt the addition of more complete libraries to the Union Catalog. As funds become available to the Library of Congress Union Catalog for the expansion of the catalog, it is suggested that the first three union catalogs in Table 25 be copied first, followed by as many as possible of the library catalogs in the same table. These libraries should be copied in approximately the order in which they are listed, such adjustments in order being made as the figures suggest. The Yale University Library, for example, should be copied before the New York Public Library, and the copying of the Boston Public Library could well be delayed until after the Columbia University Library has been recorded.

The adjustments in these two instances are occasioned by the fact that a major portion of these two libraries are already recorded in the Library of Congress Union Catalog. Other adjustments suggested by the percentage figures in Column 3 in Table 25 may be due to the same circumstance, or to the fact that those items in their collections which are not now in the Library of Congress Union Catalog are held by other libraries in the list which had (hypothetically) been added to the Union Catalog first.

After the first 10 libraries in Table 25 have been copied, it would be well to include the remaining nine regional union catalogs, for they will probably add more new titles than the remaining libraries in the table. Other union catalogs should be included as soon as they are completed, for they will bring into the national union catalog the unique holdings of many small libraries which could not otherwise be profitably included. In the event that all of the 110 library and union catalogs checked with the sample were recorded in the Union Catalog, it would be increased in size by about 3,500,000 titles,

making a total of approximately 9,800,000. To this figure may be added another 200,000, as the number of unique titles held by other libraries in the United States that have not been checked with the sample, and that have not contributed to the Library of Congress Union Catalog. This figure of 10,000,000 titles may safely be regarded as representing the number of different titles held by American libraries, for in view of the rapid falling-off of titles that has been described, it is extremely unlikely that the inclusion of all the libraries in the Union Catalog would reveal enough new titles to raise the total figure above 10,000,000.

The inclusion of the 11 union catalogs and the 39 libraries listed in Table 25 would bring the number of titles in the Library of Congress Union Catalog to 87 per cent of the 10,000,000 titles in all the libraries in the country, and would bring the number of titles to 98 per cent of the 9,788,000 titles the Union Catalog would contain if all of the 109 libraries and union catalogs checked with the sample were included. The inclusion of these 109 libraries and union catalogs would in turn bring the number of titles in the Union Catalog to 98 per cent of the maximum total of 10,000,000 titles. The 109 library and union catalogs contain approximately 34,000,000 main entries, which would cost approximately \$2,000,000 to include in the Library of Congress Union Catalog, on the basis of the unit cost of \$.0584 developed for the microphotographic method in Chapter III. The expenditure of \$2,000,000 in this manner, would make the Union Catalog very nearly as complete as it would be if all libraries in the United States were included at the cost of \$5,000,000 worked out in Chapter V. The usefulness of such a catalog would, of course, be limited to its locating somewhere in the United States a copy of almost any of the titles in the country; it would have no basic network of regional union catalogs, and would be unable to participate in the national planning of regional library resources. Its cost has been outlined here for comparative purposes and in view of the possibility that it might prove a worth-while antecedent to the development of a national union catalog based on a system of regional union catalogs.

DUPLICATION AMONG AMERICAN RESEARCH LIBRARIES

The major reason that the number of new titles which would be added to the Library of Congress Union Catalog falls off so rapidly as successive libraries are added to it is indicated by the amount of duplication existing among American libraries. Such duplication may very well be justified in terms of the several libraries' objectives, and their obligations to certain kinds of clientele, but it nevertheless remains true that American libraries cannot buy books not already in America to precisely the extent that they buy more than one copy of the same book. Some duplication is inescapable under the American practice of having almost all universities teach very nearly the

same subjects, but is it necessary that Harvard University hold 54 per cent of the titles held by Yale University, less than two hundred miles away? Is it important to the instructional program of Harvard University that 45 per cent of the titles in the Boston Public Library are duplicated in its own library? Would not a considered policy of library cooperation make it possible to get along with less duplication if the alternative were to mean the ability to purchase many titles not now available at all?

These questions need not and will not be answered here, but an attempt will be made to show the amount of duplication existing between the group of 46 members of the Association of Research Libraries, whose holdings have already been hypothetically added to the Library of Congress Union Catalog in the preceding discussion. The sample of 3,682 cards was tabulated to show the number of cards common to each group of two libraries, and from this number two figures were calculated to show the per cent of duplication between the two libraries in each group, viz:

TABLE 26
DUPLICATION BETWEEN HARVARD UNIVERSITY LIBRARY
AND NEW YORK PUBLIC LIBRARY

<i>Library</i>	<i>Titles Held</i>	<i>Titles Duplicated</i>	<i>Per Cent</i>
Harvard University Library	913	288	31.5
New York Public Library	774	288	37.2

This table is read as follows: Of the 913 titles in the Harvard University Library, 288, or 31.5 per cent, are also in the New York Public Library; of the 774 titles in the New York Public Library, 288, or 37.2 per cent, are also in the Harvard University Library. These same relationships were calculated for the other 2,068 pairs of libraries, all of which are shown in Table 27, in which the 46 libraries are arranged in descending order according to their size in volumes. The figure is read in the same manner as the table above, except that the number of titles in the sample that each library held has been omitted, since it is assumed that the sample reflects the actual conditions in the libraries. Thus, the above two relationships would be read: of the titles in Harvard University Library, 31.5 per cent are also in the New York Public Library; of the titles in the New York Public Library, 37.2 per cent are also in Harvard University Library. All of the relationships must be read horizontally.

THE INDEX OF DISTINCTIVENESS

When the percentages in Table 27 are averaged across each row and down each column, it is possible to arrive at average percentages which at the bot-

	University of Kansas	Grosvenor Library	Univ. of Calif. at L. A.	Indiana University	University of Virginia	Cath. Univ. of America	Iowa State College	Louisiana State Univ.	Huntington Library	Clark University	Eng. Societies Library	Index of Duplication
H. ₂	6.9	6.9	6.0	6.2	3.2	3.1	3.4	4.3	3.0	3.3	10.3	
N. ₈	6.6	7.4	5.4	5.4	2.8	4.0	3.5	4.1	2.7	9.0	9.8	
Y. ₈	9.1	11.2	8.6	8.4	3.7	5.1	4.9	6.1	4.6	5.3	14.3	
C. ₄	11.2	15.0	12.8	9.5	4.4	7.4	7.1	5.7	5.4	1.4	18.6	
B. ₄	12.0	9.6	9.4	9.9	4.5	5.4	5.6	6.8	4.9	1.4	13.7	
L. ₂	10.4	12.1	11.9	7.7	4.6	5.8	5.6	5.8	4.8	1.2	15.9	
L. ₁	12.1	16.1	14.5	14.5	6.0	9.3	7.2	5.2	7.7	2.4	21.6	
L. ₃	15.8	16.2	15.0	12.7	5.0	8.8	9.2	9.6	6.9	2.3	21.0	
L. ₅	13.7	17.2	14.0	10.2	4.1	8.6	7.6	7.6	6.7	6.4	19.3	
L. ₀	20.3	22.6	18.6	13.4	5.2	12.2	12.2	10.5	8.7	1.7	26.6	
P. ₇	15.5	16.7	15.1	11.2	7.6	8.0	8.8	7.2	6.8	1.6	20.8	
U. ₅	20.1	16.5	12.9	6.7	8.0	8.9	4.9	7.1	0.9	21.2		
S. ₁	14.1	19.2	16.7	12.1	7.1	7.6	7.6	5.0	10.1	1.5	23.2	
U. ₂	20.6	21.9	20.0	13.8	9.4	10.0	11.2	9.4	10.0	18.8	25.5	
N. ₇	23.4	27.4	26.6	20.2	8.1	10.5	13.7	8.1	12.1	2.4	28.6	
J. ₃	15.8	13.3	13.9	8.9	3.2	11.4	5.1	7.6	9.5	3.2	19.4	
D. ₅	19.7	21.0	18.4	19.7	3.9	9.9	9.2	8.6	7.9	1.3	24.1	
N. ₀	25.0	31.2	24.1	21.4	8.9	11.6	13.4	4.5	8.9	3.6	29.9	
N. ₃	14.0	21.3	14.0	10.7	4.7	6.7	10.0	17.3	8.7	20.0	21.2	
J. ₃	14.0	20.0	15.3	12.0	6.0	6.7	5.3	7.3	6.7	2.7	22.8	
B. ₂	16.3	13.4	13.8	12.6	2.8	6.1	5.3	8.1	4.1	1.6	17.2	
D. ₅	20.8	16.7	14.2	14.2	4.2	10.8	7.5	9.2	10.0	1.7	21.6	
C. ₉	21.0	22.8	19.3	24.6	7.9	17.5	14.9	3.5	9.6	1.8	26.7	
U. ₀	21.7	28.3	17.4	21.7	6.5	17.4	10.9	6.5	8.7	0.0	32.0	
I. ₆	25.6	26.4	26.4	17.0	8.5	18.6	14.7	7.0	11.6	2.3	28.3	
U. ₃	28.0	33.3	32.0	24.0	10.7	18.7	20.0	6.7	13.3	2.7	36.1	
U. ₇	16.7	20.0	16.7	14.0	7.3	14.0	10.0	4.0	8.7	0.7	23.1	
V. ₇	28.1	34.6	25.0	23.1	3.8	13.5	19.2	3.8	15.4	0.0	33.5	
U. ₃	27.4	26.3	29.5	21.0	12.6	18.9	13.7	7.4	11.6	3.2	31.1	
U. ₃	22.5	39.3	28.1	22.5	6.7	16.9	16.9	6.7	13.5	4.5	31.8	
M. ₀	20.0	18.0	22.0	18.0	5.0	9.0	11.0	9.0	13.0	2.0	23.7	
U. ₇	30.7	26.1	22.7	23.9	5.7	18.2	10.2	6.8	15.9	1.1	29.0	
U. ₇	28.4	25.7	31.1	21.6	8.1	14.9	18.9	6.8	20.3	2.7	28.7	
U. ₄	18.1	19.0	19.8	12.1	7.8	10.3	9.5	7.8	11.2	1.7	23.8	
M. ₄	23.0	26.2	24.6	23.0	3.3	21.3	9.3	6.6	11.5	4.9	25.8	
U	21.6	36.5	29.7	16.2	9.4	16.2	17.6	8.1	16.2	2.7	30.5	
G. ₇	19.6	24.5	19.6	5.9	17.6	14.7	12.7	13.7	2.0	26.7		
U. ₃	18.0	24.3	13.5	8.1	15.3	17.1	9.9	9.9	0.0	29.2		
H. ₂	30.9	33.3	23.4	9.9	21.0	18.5	7.4	17.3	2.5	33.3		
U. ₁	23.5	17.6	22.4	11.8	17.6	14.1	8.2	8.2	2.4	26.4		
C. ₅	10.7	16.1	14.3	17.8	3.6	5.4	1.8	5.4	0.0	17.3		
K. ₂	33.3	31.5	31.5	27.8	3.7	11.1	5.6	11.1	1.8	29.5		
L. ₆	27.3	34.5	27.3	21.8	5.4	10.9	10.9	14.5	1.8	27.4		
H. ₃	18.0	15.3	8.3	9.7	1.4	4.2	8.3	4.2	0.0	17.1		
C. ₈	35.9	28.2	35.9	17.9	7.7	15.4	20.5	7.7	5.1	34.2		
E. ₁	11.1	0.0	11.1	11.1	0.0	5.6	5.6	0.0	11.1	15.1		
I. ₂	14.7	16.4	14.5	12.1	5.2	8.6	8.1	6.6	7.1	1.4		
												Index of Inclusiveness

Onship is wanted, select lower cell common to both and read: Of the titles in the New York Public Library, 37.2 pe

tom of the table represent an index of inclusiveness, and at the right side an index of duplication. These average percentages were derived by averaging the real numbers on which the individual percentages are based. An examination of the table shows that the index of inclusiveness at the bottom of the page decreases as it is read from left to right—in direct proportion to the size of the libraries. Similarly, the index of duplication at the right edge increases as it is read from top to bottom—in indirect proportion to the size of the libraries. These two indexes are presented again in Table 28 along with an index of distinctiveness which is derived from them.

The index of inclusiveness shown in Column 1 represents the average extent to which each library holds the same titles held by all of the other 46 libraries in the group. The word "average" here is important and must be emphasized. To say that Harvard holds 56.2 per cent of the titles of each of the other libraries would be wrong; the specific duplication between Harvard and any other library can be read directly from Table 27. But when all of the titles held by the other 45 libraries are taken as a whole, it may be said that Harvard holds 56.2 per cent of that whole group of titles, or that it includes an average of 56.2 per cent of the titles held by the other 45 libraries. Thus Harvard's index of inclusiveness is high; Harvard holds more of the books held by all other libraries in the group than any other library.

The index of duplication shown in Column 2 represents the average extent to which the holdings of each library are *not* duplicated by any other library in the group. Again the word "average" must be stressed. The per cent of duplication between any two libraries may be read from Table 27; this index of duplication averages all of the individual percentages to show an index of duplication that indicates the extent to which each library's holdings are not held by the other libraries in the group. Thus only 10.3 per cent of the titles held by Harvard are held by the other libraries as a group. In general, the library with a high index of inclusiveness has a low index of duplication and vice-versa, which is only to say that the library that holds most of the books held by other libraries is apt to hold more books that other libraries do not have. Certain variations in this relationship are, however, apparent. The New York Public Library's index of inclusiveness, for example, is lower than that of Harvard, indicating that it holds fewer of the books held by other libraries than does Harvard. But its index of duplication is also lower, if only slightly, indicating that it holds a greater proportion of books not held by other libraries than does Harvard University Library. It becomes obvious that in order to measure this group of libraries some other index, some combination of these two indexes, is needed in order to show in one percentage figure the composite showing of each library according to these indexes.

This combination of the two indexes is achieved by subtracting the index of duplication from the index of inclusiveness to derive the index of distinctiveness which is shown in Column 3 in Table 28. This index reduces to one number the relation of each of the libraries to the whole group of

TABLE 28

RELATION OF FORTY-SIX MEMBERS OF THE ASSOCIATION OF RESEARCH LIBRARIES
TO EACH OTHER ACCORDING TO AN INDEX OF DISTINCTIVENESS

<i>Library</i>	<i>Index of Inclusiveness</i>	<i>Index of Duplication</i>	<i>Index of Distinctiveness</i>
Harvard University Library	56.2	10.3	46.0
New York Public Library	44.6	9.8	34.8
Yale University Library	46.6	14.3	32.3
Columbia University Library	38.3	18.6	19.6
Boston Public Library	32.7	13.7	19.0
University of Chicago Library	36.6	15.9	20.7
University of Illinois Library	29.5	21.6	7.9
University of Michigan Library	30.1	21.0	9.1
University of California Library	33.5	19.3	14.2
University of Minnesota Library	25.0	26.6	- 1.6
Princeton University Library	28.7	20.8	7.9
University of Pennsylvania Library	26.0	21.2	4.8
Stanford University Library	25.1	23.2	1.9
University of Texas Library	22.2	25.5	- 3.3
Northwestern University Library	19.2	28.6	- 9.4
John Crerar Library	16.6	19.4	- 2.8
Duke University Library	19.9	24.1	- 4.2
New York University Library	18.1	29.9	- 11.9
Newberry Library	17.3	21.2	- 3.9
Johns Hopkins University Library	18.6	22.8	- 4.2
Brown University Library	23.3	17.2	5.1
Dartmouth College Library	14.0	21.6	- 7.6
Ohio State University Library	16.4	26.7	- 10.3
University of Cincinnati Library	7.9	32.0	- 24.1
Iowa State University Library	19.8	28.3	- 8.5
University of Washington Library	14.5	36.1	- 21.6
University of Wisconsin Library	18.8	23.1	- 4.3
Washington University Library	9.4	33.5	- 24.1
University of Missouri Library	16.4	31.1	- 15.7
University of North Carolina Library	15.2	31.8	- 16.6
McGill University Library	12.8	23.7	- 10.9
University of Rochester Library	13.7	29.0	- 15.3
University of Nebraska Library	11.4	28.7	- 17.3
University of Toronto Library	14.9	23.8	- 8.9
Massachusetts Institute of Technology Library	8.5	25.8	- 17.3
University of Kansas Library	12.2	30.5	- 18.3
Grosvenor Library	14.7	26.7	- 12.0
University of California at Los Angeles Library	16.4	29.2	- 12.8
Indiana University Library	14.5	33.3	- 18.8
University of Virginia Library	12.1	26.4	- 14.3
Catholic University of America Library	5.2	17.3	- 12.1
Iowa State College Library	8.6	29.5	- 20.9
Louisiana State University Library	8.1	27.4	- 19.3
Huntington Library	6.6	17.1	- 10.5
Clark University Library	7.1	34.2	- 27.1
Engineering Societies Library	1.4	15.1	- 13.7

libraries with respect to their holdings of titles held by other libraries, and their ownership of titles not held by other libraries. It arranges the libraries roughly according to their practice of duplicating books bought by other libraries, and their practice of buying books that no other libraries buy. This arrangement is similar to that achieved when the libraries are arranged according to their size in volumes, as is shown by a Spearman rank-order correlation of a positive .80. In general, then, it is possible to say that the larger a library is in terms of the volumes it holds, the more apt it is to include the holdings of other libraries, and the more apt it is to own works that other libraries have not acquired. The exceptions that it is possible to observe in Table 28 are only those that bring the measure of correlation down from a possible positive 1.00 to a positive .80.

That this should be so is in a sense obvious, but it is also encouraging, for it shows that libraries acquire a greater proportion of distinctive material merely by becoming bigger libraries. The statement of this fact does not, however, constitute a recommendation; librarians are already too prone to increase the size of their collections for no other reason than to increase the size of their collections. Along with this very easy policy of accessions has gone a policy of isolationism that can best be described in the words of Charles H. Brown:

The isolationist policy of our research libraries can meet with equal condemnation. We have duplicated our special collections in many fields and have left untouched fields which should be developed by some library. How many libraries are boasting of their incunabula because 'Incunabula are nice to have. They give a library prestige.' Where are our outstanding collections in tobacco, cotton, coal mining? Many of us are duplicating in Southwest history, Pennsylvaniana, early printing, and at the same time neglecting almost entirely other fields which are much more closely related to the nation's daily activities and to defense.⁹

This isolationist policy cannot be broken down over night, or in a year, and perhaps not in ten, but it can be progressively mitigated by increasing our knowledge of the resources of other libraries in each region and in the nation. Books may then be bought with full knowledge of the existing duplication of each title, and it should be possible to defer indefinitely the purchase of some titles that already exist in sufficient number, thus providing for the purchase of other works not so readily available.

WORLD BOOK PRODUCTION

Before entering upon the consideration of American holdings of world library resources, some attempt must be made to define "world library resources," and some attempt should be made to enumerate them. Although

⁹ Charles Harvey Brown, "Educational Isolationism and the Library," *A.L.A. Bulletin*, XXXV (1941), 408.

the enumeration is more difficult, it will be undertaken first because it will serve to illustrate some of the problems of definition. Iwinski,¹⁰ writing in 1911 of the period from the invention of printing to the end of the year 1908, estimates the total accumulation of books to that date to be 10,378,365.¹¹ The estimate is based on a careful examination of bibliographical and publication records for such statistics as can be gleaned from them, coupled with a system of estimation by mathematical progression for the periods for which no precise figures are available. This procedure must be accepted as the best that is now possible, even though it is fraught with a number of difficulties that must inevitably cause the figure of 10,000,000 to be somewhat erroneous —probably in the direction of being too small. One of these difficulties is the sheer lack of statistics for certain countries and for certain periods in most countries. Neither Iwinski nor Schneider,¹² who was concerned with a more recent period, was able to cite production figures for China, and frequent gaps occur in other national statistics presented by both writers. Another difficulty is the lack of agreement between countries and even within the same country as to what constitutes a book. National production figures sometimes include pamphlets and other very ephemeral material; just as often they do not. The figures for the United States compiled by the *Publishers' Weekly* included pamphlets before 1921; since then pamphlets have been excluded. Both Iwinski and Schneider accept the *Publishers' Weekly* figures for the United States, but Iwinski recognizes their probable inaccuracy by citing the fact that the figures of the United States Copyright Office are more than three times as great.¹³ Publications of the national, state, and local governments are included in neither of these sources, and are omitted from consideration entirely. And so with the figures for other countries: sources differ, definitions are inconsistent, and figures include and exclude different classes of material from time to time and from country to country. Iwinski's chore was a difficult one at best, and we can accept his figure only with the understanding that it is the best available and that the best is none too good.

Since Iwinski's figures bring the story of book production only to the year 1908, it is necessary to seek other sources for estimating the total book production through the year 1940. Since detailed research in the statistics of book production is beyond the scope of this study, certain secondary

¹⁰ M. B. Iwinski, "La Statistique Internationale des Imprimés," *Bulletin de L'Institut International de Bibliographie*, XVI (1911), 1-139.

¹¹ There seems to be no justification in Iwinski for the Van Hoesen and Walter statement in their *Bibliography: Practical, Enumerative, Historical* (New York: Scribner's, 1928), p.2, that "Iwinski's elaborate statistical study of book production estimates that there are over twenty-five million different books in existence."

¹² Georg Schneider, *Handbuch der Bibliographie* (Leipzig: Karl W. Hiersemann, 1930), p.159-368, *passim*.

¹³ *Ibid.*, p.4.

sources will be accepted as being sufficiently authoritative. One of the most important of these is the chapter on "Allgemeine Nationale Bibliographien" in Schneider's *Handbuch der Bibliographie*,¹⁴ in which each country dis-

TABLE 29
WORLD BOOK PRODUCTION THROUGH 1940^a

<i>Country</i>	<i>Period Covered</i>	<i>Source</i>	<i>Books Published</i>	<i>Total</i>	<i>Rank</i>
1. Argentina	1886-1928	IP	31,992	42,210	25
	1929-1932	P	3,406		
	1933-1940	C	6,812		
2. Belgium	1838-1908	I	97,806	163,711	14
	1909-1926	S	37,079		
	1927-1940	C	28,826		
3. Bulgaria	1805-1908	I	22,000	88,284	20
	1909-1927	S	33,704		
	1928-1933	P	15,038		
	1934-1940	C	17,542		
4. Canada	1893-1916	IS	22,032	66,540	22
	1917-1922	S	9,678		
	1923-1940	C	34,830		
5. Chile	1776-1891	I	13,995	75,903	21
	1892-1925	S	39,492		
	1926-1940	C	22,416		
6. Czechoslovakia (Bohemia)	1890-1908	I	29,056	189,520	12
	1909-1920	IS	40,380		
	1921-1927	S	35,909		
	1928-1932	L	34,375		
	1933-1940	C	51,800		
7. Denmark (including Iceland)	1861-1908	I	88,352	200,165	11
	1909-1927	S	70,697		
	1928-1933	P	18,977		
	1834-1940	C	22,139		
8. Estonia	1924-1925	S	1,567	13,312	30
	1926-1940	C	11,745		
9. Finland	1876-1895	IS	30,840	174,654	13
	1896-1924	S	91,757		
	1925-1940	C	52,057		
10. France	1436-1500	I	1,125	1,425,502	3
	1501-1811	C	333,392		
	1812-1816	S	18,871		
	1817-1908	I	754,664		
	1909-1927	S	173,033		
	1928-1933	P	66,654		
	1934-1940	C	77,763		

¹⁴ *Ibid.*

UNION CATALOGS IN THE UNITED STATES

TABLE 29—Continued

<i>Country</i>	<i>Period Covered</i>	<i>Source</i>	<i>Books Published</i>	<i>Total</i>	<i>Rank</i>
11. Germany	1436-1908	I	2,050,400	2,894,864	2
	1909-1927	S	521,882		
	1928-1933	P	148,884		
	1934-1940	C	173,698		
12. Great Britain and Ireland	1436-1731	S	24,226	920,674	6
	1732-1908	I	485,896		
	1909-1910	IS	21,116		
	1911-1927	S	188,259		
	1928-1930	L	43,878		
	1931-1939	E	141,144		
	1940	C	16,215		
13. Holland	1436-1500	I	2,049	332,445	10
	1501-1540	S	2,221		
	1541-1813	C	15,015		
	1814-1908	I	136,911		
	1909-1916	IS	31,184		
	1917-1927	S	55,961		
	1928-1932	P	34,872		
	1933-1940	C	54,832		
14. Hungary	1531-1927	S	117,232	159,543	15
	1928-1932	P	15,903		
	1933-1940	C	26,408		
15. India	1891-1897	I	54,933	580,445	7
	1898-1919	IS	217,734		
	1920-1924	S	73,282		
	1925-1940	C	234,496		
16. Italy	1436-1500	I	6,636	1,217,688	5
	1501-1834	C	487,640		
	1835-1908	I	452,013		
	1909-1926	S	133,779		
	1927-1932	P	58,980		
	1933-1940	C	78,640		
17. Japan	1496-1589	S	658	3,924,289	1
	1590-1897	IC	3,107,820		
	1898-1905	I	181,504		
	1906-1917	IS	280,492		
	1918-1927	S	139,031		
	1928-1934	PL	119,114		
	1935-1940	C	95,670		
18. Latvia	1920-1928	S	11,831	27,599	27
	1929-1940	C	15,768		
19. Mexico	1539-1600	I	116	34,188	26
	1601-1887	C	24,108		
	1888-1940	ISC	9,964		

TABLE 29—Continued

<i>Country</i>	<i>Period Covered</i>	<i>Source</i>	<i>Books Published</i>	<i>Total</i>	<i>Rank</i>
20. Norway	1893-1904 1904-1927 1928-1931 1932-1940	I S P C	7,470 22,065 6,268 14,103	49,906	24
21. Poland	1801-1908 1909-1927 1928-1932 1933-1940	I S L C	133,367 58,451 58,030 92,848	342,696	9
22. Portugal	1915-1920 1921-1929 1930-1932 1933-1940	S PS P C	6,528 18,549 7,689 20,504	53,270	23
23. Roumania	1898-1901 1902-1920 1921-1924 1925-1930 1931-1933 1934-1940	I C S SP P C	7,200 34,200 15,352 27,108 13,298 31,024	128,182	17
24. Russia	1553-1908 1909-1927 1928-1929 1930-1932 1933-1940	I S L P C	477,715 369,004 62,551 107,698 287,192	1,304,160	4
25. Spain	1436-1500 1501-1874 1875-1908 1909-1927 1928-1933 1934-1940	I C I S P C	600 23,562 33,114 65,275 15,466 18,010	156,027	16
26. Sweden	1436-1525 1887-1901 1902-1927 1928-1932 1933-1940	I I S P C	22 25,494 64,438 13,168 21,064	124,186	18
27. Switzerland	1892-1908 1909-1920 1921-1927 1928-1932 1932-1940	I IS S P C	36,264 40,248 11,345 10,519 16,824	115,200	19
28. United States	1640-1821 1822-1908 1909-1910 1911-1920 1921-1940	S I IS S P	16,680 203,846 24,832 93,758 187,824	526,940	8

TABLE 29—Continued

Country	Period Covered	Source	Books Published	Total	Rank
29. Uruguay	1902-1906	I	528	20,873	29
	1907-1908	IS	893		
	1909-1924	S	9,726		
	1925-1940	C	9,726		
30. Yugoslavia	1924-1926	S	4,860	24,300	28
	1927-1940	C	19,440		
Grand total			15,377,276	15,377,276	

^aSources: I—B. Iwinski, "La Statistique Internationale des Imprimés," *Bulletin de L'Institut International de Bibliographie XVI*, 1911.

S—G. Schneider, *Handbuch der Bibliographie*, 4th ed. Leipzig: Verlag Karl W. Hiersemann, 1930.

L—*Lexikon des Gesamten Buchwesens*, Vol. I, ed. by K. Löffler and others (Leipzig: Verlag von K. W. Hiersemann, 1935).

P—*Publishers' Weekly*, Vols. CXVII-CXXXVI.

E—*English Catalogue of Books*, Vol. XIII (1931-35) and 100th-103d issues (1936-39 inclusive) (London: Publishers' Circular, Ltd., 1936-40).

C—Computed on basis of data contained in the above sources.

cussed is supplied with a footnote describing book production in that country through (in most cases) the year 1927. Other sources used are listed in Table 29, which also indicates that some calculation was necessary to fill gaps for which no actual figures were available. These calculations are all based on the assumption that the annual book production during the intervening years would approximate the figure derived from averaging the two years on either side of the gap for which production is known. In those cases where the gap was so large that an average would be almost meaningless, the gap has been allowed to remain unfilled, its presence being indicated in the table. In those cases where figures were not available at all for a period of years preceding 1941, the figures for each of the last five years for which they are available were averaged, and this average assigned to each year up to and including 1940.

When all of these figures are totaled it is seen that the total book production for those countries and those periods for which data are available is 15,377,276 titles. This is nearly 5,000,000 more than the 10,378,365 that were counted by Iwinski up to the end of 1908, and represents an average annual book production of 156,216 titles during each of the thirty-two years since 1908. No accuracy is claimed for these figures; they are presented merely as the best available from secondary sources, and as a background for the estimates of American holdings of world library resources that follow.

WORLD RESOURCES IN AMERICAN LIBRARIES

If this figure of 15,000,000 books can be accepted as the total number published since the beginning of printing, and if the estimate that American libraries hold 10,000,000 titles is reasonably correct, it seems possible that about two thirds of world library resources are now available in the United

States. No accuracy can be claimed for this figure. Indeed some of the analyses made below seem to show it to be erroneous. It is presented merely for what it may be worth in itself, and in the light of the limitations that closer definition of the term "world library resources" suggests. Since all of the titles in the sample of 3,682 cards in use here are in the Latin alphabet, a number of whole national literatures were in large part left out of consideration. This is true, of course, for both the sample and the libraries checked, and the proportion of two thirds could still be assumed to hold even for those literatures in non-Latin alphabets. This is not likely, however, for the American culture stems from Western Europe, and it is extremely improbable that our libraries hold as great a proportion of the works of Asiatic and Eastern European literatures as they seemingly do of those of Western Europe. World literature, then, means Western world literature written in the Latin alphabet. American libraries include a good many Master's and Doctor's theses in manuscript form which do not find their way into statistics of publishing, but do find their place in library catalogs. Similarly, American libraries might be expected to catalog a good many of the 20,000 or more publications listed in the *Catalog of Copyright Entries* but not counted by the *Publishers' Weekly*, in addition to a large number of government documents. Based on the available statistics of book production, the statement may be made that approximately two thirds of all published works are available in the United States, but it can be made only with a good many reservations, of which the most important are the incompleteness of book production statistics and the padding of American library holdings with manuscript and minor printed materials that do not find their way into production figures.

Another approach to the problem was made by comparing American library holdings with the following group of national library catalogs and bibliographies, most of which were not published in the United States. The list is here given in alphabetical order for convenient reference (Table 30), but the bibliographies will be discussed in four separate groups, according to their nature. The procedure used in preparing the four following analyses is simple. Only the entries in each of these bibliographies and catalogs that fell within the same alphabetical ranges occurring in the sample were copied; the sample being the one used in estimating the number of titles in the United States. These cards, copied from each bibliography and catalog, were then compared with the sample itself to discover what proportion of the entries in each of the bibliographies was to be found in the sample. Since it was found that the sample was a reasonably good index to the number of titles in particular American libraries, it is assumed that it is equally as representative of American holdings as a whole, and that a sample chosen in the same way from other alphabetical sequences of titles is equally repre-

TABLE 30

BIBLIOGRAPHIES AND LIBRARY CATALOGS CHECKED
WITH SAMPLE OF 3,682 TITLES

- Bateson, F. W. *The Cambridge Bibliography of English Literature*. New York: Macmillan, 1941.
- Biblio, Catalogue des Ouvrages Parus en Langue Française dans le Monde Entier*. Paris: Hachette, 1935-39.
- Brunet, Jacques Charles. *Manuel du Libraire et de L'Amateur de Livres*. 5th ed. Paris: Firmin-Didot, 1860-80.
- Catalogue Général des Livres Imprimés de la Bibliothèque Nationale*. Paris: Imprimerie Nationale, 1897-1939.
- Catalogue of the Printed Books in the Library of the British Museum*. London: 1885-1940.
- Deutscher Gesamtkatalog*. Berlin: Preussische Druckerei-und Verlags-Aktiengesellschaft, 1931-39.
- Deutsches Bücherverzeichnis*. Leipzig: Verlag des Börsenvereins der Deutschen Buchhändler, 1916-37.
- Dutcher, George Matthew, joint ed. *Guide to Historical Literature*. New York: Macmillan, 1931.
- Ebert, Friedrich Adolf. *Allgemeines Bibliographisches Lexikon*. Leipzig: Brockhaus, 1821-30.
- The English Catalogue of Books*. London: Various publishers, 1864-1940.
- Graesse, Johann Theodor. *Trésor de Livres Rares et Précieux*. Dresden: R. Kuntze, 1859-69.
- Heinsius, Wilhelm. *Allgemeines Bücherlexikon oder Vollständiges Alphabetisches Verzeichnis Aller von 1700 bis Ende 1892 Erschienenen Bücher*. Leipzig: Brockhaus, 1812-94.
- Higgs, Henry. *Bibliography of Economics, 1751-1775*. Cambridge: Cambridge University Press, 1935.
- Hinrichs, J. C. *Halbjahrsverzeichniskatalog der im Deutschen Buchhandel Erschienenen Bücher, Zeitschriften, Landkarten*. . . Leipzig: Verlag des Börsenvereins der Deutschen Buchhändler zu Leipzig, 1936-40.
- International Bibliography of Historical Sciences, 1926-1937*. New York: H. W. Wilson Co., 1930-39.
- Kayser, Christian Gottlob. *Vollständiges Bücher-Lexikon, Enthaltend Alle von 1750 in Deutschland und in den Angrenzenden Ländern Gedruckten Bücher*. Leipzig: Various publishers, 1834-1911.
- Langer, William L. and Armstrong, Hamilton Fish. *Foreign Affairs Bibliography*. New York: Harper, 1933.
- Lanson, Gustave. *Manuel Bibliographique de la Littérature Française Moderne*. Nouvelle ed. Paris: Librairie Hachette, 1931.
- London Bibliography of the Social Sciences*. London: London School of Economics and Political Science, 1931-37.
- Lorenz, Otto. *Catalogue Général de la Librairie Française*. Paris: Lorenz and others, 1867-1934.

- Lowndes, William Thomas. *The Bibliographer's Manual of English Literature.* London: George Bell & Sons, 1857-64.
- Masui, Mitsuzo, ed. *A Bibliography of Finance.* Kobe, Japan: Kobe University of Commerce, 1935.
- Rand, Benjamin. "Bibliography of Philosophy, Psychology and Cognate Subjects," in James Baldwin, *Dictionary of Philosophy and Psychology.* Vol. III. New York: Macmillan, 1905.

sentative of those sources.

Looking first at the analyses of the three national library catalogs in Table 31, it should be explained that in no case do the figures given represent the entire holdings of the several libraries, but merely the titles that occur within the range of the sample in the published portions of the catalog. Only the British Museum Catalogue sample contains entries for each letter of the alphabet, the Bibliothèque Nationale Catalogue stopping with the letter R, and the Deutscher Gesamtkatalog being limited to entries in the letter A. The relation of the percentages in the table seems logical enough. American libraries hold about one third of the titles in the Bibliothèque Nationale and in the group of German libraries included in the Gesamtkatalog, while they hold nearly one half of the titles in the British Museum. This difference in the percentages of holdings is easily explained in terms of the difference in language, since it is but natural that we should import more English books than either German or French books.

TABLE 31
TITLES IN THREE NATIONAL LIBRARY CATALOGS
HELD BY AMERICAN LIBRARIES

	Total Cards in Alphabetical Range of Sample	Cards in Sample	Per Cent of Total Cards Found in Sample
Bibliothèque National Catalogue	629	202	32.1
Deutscher Gesamtkatalog	50	17	34.0
British Museum Catalogue	533	247	46.3
Total (minus titles common to 2 or more catalogs)	1,134	422	37.2

This same general condition is shown by Waples and Lasswell in their analysis of foreign and American library holdings of a selected list of 476 important works in the social sciences; Table 32 is drawn from this analysis, and makes immediately apparent that American libraries are more partial, in varying degrees, to British books than they are to either German or French books. "The average strength of the six libraries in English is nearly twice

their strength in French and German titles, the last two being equal."¹⁵ The correspondence between this analysis of social science publications and that in Table 31 of publications in general shows at once that the picture for publications in other fields is essentially the same as in social science, and that the picture for American libraries generally is substantially the same

TABLE 32^a

HOLDINGS BY SIX AMERICAN LIBRARIES OF 476 IMPORTANT SOCIAL SCIENCE TITLES BY COUNTRY OF PUBLICATION

<i>Library</i>	<i>Per Cent of 137 English Books</i>	<i>Per Cent of 149 French Books</i>	<i>Per Cent of 190 German Books</i>
New York Public Library	100	91	87
Library of Congress	95	58	57
Harvard University Library	82	60	55
University of Chicago Library	77	36	41
University of California Library	80	21	26
University of Michigan Library	56	21	21
Average	82	48	48

^a Adapted from Fig. 20, "Holdings by Country of Publication," in Douglas Waples and Harold D. Lasswell, *National Libraries and Foreign Scholarship* (Chicago: University of Chicago Press, 1936), p. 75.

as that for these six selected libraries, all of which were also included in the checking of the general sample.

Turning now to the selected list of bibliographies of "world literature," we find, according to Table 33, that American libraries hold 38 per cent of the titles in these three general international bibliographies. Although the

TABLE 33
TITLES IN THREE INTERNATIONAL BIBLIOGRAPHIES
HELD BY AMERICAN LIBRARIES

<i>Bibliography</i>	<i>Total Cards in Alphabetical Range of Sample</i>	<i>Cards in Sample</i>	<i>Per Cent of Total Cards Found in Sample</i>
Graesse	13	5	38.5
Brunet	6	3	50.0
Ebert	7	4	57.1
Total (less titles common to two or more bibliographies)	21	8	38.1

three works are quite similar in their objectives, Brunet gives greater emphasis to rare books than Ebert, which is more concerned with good or scholarly

¹⁵ Douglas Waples and Harold D. Lasswell, *National Libraries and Foreign Scholarship* (Chicago: University of Chicago Press, 1936), p. 74.

books, even though in other than first editions, while Graesse steers a middle course between the two policies. The figures for the separate works are probably too small to be quite meaningful, but it is possible to say that nearly two thirds of the works listed in these three standard bibliographies are not in American library locations.

Seven national bibliographies of three European countries were similarly checked, the results being shown in Table 34. English titles are again well represented in American libraries, as was to be expected from previous tabulations, and the French titles were this time better represented than the

TABLE 34
TITLES IN SEVEN NATIONAL BIBLIOGRAPHIES
HELD BY AMERICAN LIBRARIES

Bibliography	Total Cards in Alphabetical Range of Sample	Cards in Sample	Per Cent of Total Cards Found in Sample
English Catalog	English 301	169	56.1
Lorenz Biblio	French 228 13	95 8	41.7 61.5
Total	241	103	42.7
Hinrichs Deutsches Bücherverzeichnis Kayser Heinsius	German 64 243 513 281	20 78 186 102	31.2 32.1 36.2 36.3
Total (less titles common to two or more bibliographies)	885	291	32.9
Grand total (less titles common to two or more German bibliographies)	1,643	658	40.0

German. This is partly accounted for by the fact that both Lorenz and *Biblio* cover more recent periods than do the four German sources. Lorenz goes back only to 1840, whereas Heinsius includes publications from 1700, and Kayser from 1750. In addition, *Biblio*, which began publication in 1935, lists books published in the French language all over the world, including a good many American imprints, which naturally find their way into American libraries with greater ease than do foreign publications. The average holdings of American libraries of the publications of the three countries comes to an even 40 per cent—very nearly the same as the average for the national library catalogs and for the international bibliographies.

A number of bibliographies limited to specific subjects were chosen almost at random for checking in the same manner, to discover what proportion of works in certain subject fields is available in American libraries. The results are given in Table 35, and immediately give the impression that American book resources show up much better when measured by bibliographies in specific subject fields. The impression is accurate as far as it goes, but it must not be allowed to go much farther than the contents of the particular bibliographies checked. It is significant that Lowndes', the only one of the bibliographies that was published in the nineteenth century, should be represented in American libraries by only 43 per cent of its entries. All of the others were published in the twentieth century, eight of them since 1929, and American library holdings are correspondingly higher. In addition, five of the ten bibliographies were published in the United States, and would, therefore, tend to contain entries for works already in the United States.

TABLE 35
TITLES IN TEN SUBJECT BIBLIOGRAPHIES
HELD BY AMERICAN LIBRARIES

Bibliography	Total Cards in Alphabetical Range of Sample	Cards in Sample	Per Cent of Total Cards Found in Sample
Lowndes	7	3	42.8
Masui	12	7	58.3
Lanson	22	14	63.6
International Bibliography	25	16	64.0
Rand	25	17	68.0
London Bibliography	125	87	69.6
Langer	12	9	75.0
Cambridge Bibliography	20	16	80.0
Dutcher	14	14	100.0
Higgs	2	2	100.0
Total (less titles common to two or more bibliographies)	237	161	67.9

It is generally true that subject bibliographies are compiled from existing collections of publications in public and university libraries, and any attempt to measure the holdings of those libraries with those same bibliographies is necessarily fallacious—for the tool is already made to the measure of the libraries. It is, therefore, impossible to accept the very optimistic average holdings of 68 per cent found in Table 35 as anything more than a fair estimate of the extent to which American libraries hold the books which subject bibliographies list. It is true, of course, that the use of books in these several fields will be largely limited to the titles that the bibliographies list, and libraries can, therefore, expect to meet about two thirds of the demands

made upon them. But, so long as those demands stem only from subject bibliographies, they do not represent a general demand for all published literature. The analysis in terms of subject bibliographies being thus somewhat prejudiced in favor of books held by libraries, it is necessary to give greater weight to the prior analyses, in which it was found that American libraries hold about 40 per cent of the works listed in certain national bibliographies and library catalogs of England, France, and Germany. If we assume that these sources are representative of European literature in general, it is possible to conclude that American libraries hold approximately 40 per cent of the titles published in Europe since the invention of printing.

TITLES IN AMERICAN LIBRARIES

Mentioned previously in this chapter was the fact that most American libraries do not keep their statistics in terms of the number of titles they own, making it impossible to determine relationships between libraries on a basis of the number of different books they own. Certainly such statistics would be interesting and valuable, and the citation of only a few is fairly startling. Thus, the 1,718,867 volumes in the Chicago Public Library on January 1, 1939, were estimated to represent only 140,000 titles.¹⁶ And the 2,042,923 volumes in the Cleveland Public Library represent only 507,621 titles, according to the film record made when its catalog was copied for the Cleveland Union Catalog. Differences between volumes and titles in college and university libraries are less pronounced, but the number of titles nevertheless gives a different impression of an academic library's size than is usually apparent from a citation of the number of volumes it owns. Thus, the 496,806 volumes in the Ohio State University Library represent only 330,927 titles. Three hundred and thirty thousand volumes at the University of Nebraska are represented by 210,269 titles, and 118,750 volumes at Swarthmore by 53,500 titles.

These differences between the number of volumes and the number of titles in American libraries are accounted for very easily. One of the reasons is the occurrence of many volumes for each serial title. This is of particular importance in college and university libraries, but also helps to build up the number of volumes in public libraries. The duplication of titles for departmental libraries, and for reserve collections, increases the volume to title ratio in academic libraries, and the duplication of titles for a system of branch libraries does the same for public libraries. There is every reason for both kinds of duplication, and both must continue, but there would seem to be some argument for the more realistic measurement of library resources in terms of titles, at least when considering libraries as research institutions.

¹⁶ C. B. Joeckel and Leon Carnovsky, *A Metropolitan Library in Action* (Chicago: University of Chicago Press, 1940), p. 206-07.

The development of regional union catalogs and their compilation by the microphotographic method has provided an easily accessible body of data that can serve as the basis for deriving a ratio to show the relation between titles and volumes in American libraries. Data are available for two hundred libraries, and are reasonably well distributed between academic, public, and special libraries. The detailed figures are given in Table 36, and show that academic libraries generally own about one and three fourths volumes for each main entry in their catalogs. The ratio for public libraries is higher by a whole volume, and for special libraries by very nearly as much, the average for the 200 libraries being 2.32 volumes per title. This figure is not to be regarded as final until similar data are available for a good many more libraries, but it is reasonably accurate and may be used with success in estimating the probable number of main entries to be copied in the process of compiling a new union catalog. One need only total the volumes in the libraries to be included, and apply the ratio. If it is desired to reach a finer approximation not dependent on the assumption that academic, public, and special libraries will occur in the same proportion as they do in the analysis in Table 36, the computations can be made separately for each class of institution, and the several results totaled to arrive at the probable number of titles to be copied.

TABLE 36
VOLUMES PER TITLE IN 200 LIBRARIES
INCLUDED IN FIVE UNION CATALOGS

Type of Library	Number	Volumes	Titles ^a	Volumes Per Title
Academic Libraries	43	5,333,708	2,992,062	1.78
Public Libraries	79	9,142,579	3,287,539	2.78
Special Libraries	78	2,764,455	1,149,286	2.40
Total	200	17,240,742	7,428,887	2.32

^aBased on main entries copied for a regional union catalog.

DUPLICATION WITHIN REGIONAL UNION CATALOGS

One phase of the extent to which titles are duplicated within a particular region has already been discussed in Chapter II on pages 19 to 22, where it was shown that the number of unique titles each library contributes to the union catalog falls off rapidly as each additional library is added. Figures 1 and 2 revealed the specific rate of decrease occurring at the Philadelphia Union Catalogue, but the pattern is typical, and figures developed from comparable data, available for five other union catalogs, would appear very similar, if not almost identical. It should now be of interest to see just what proportion of all the titles in a regional union catalog are unique.

But first a word as to method. As with the figures used in Chapter II, all of the data in the following three tables were derived from a card by card tabulation of a number of trays at each of the union catalogs. All titles located in only one library were tabulated on one sheet; all titles located in two libraries were tabulated on a second sheet, both libraries holding the title being checked; all titles located in three libraries were tabulated on a third sheet, all three libraries being checked, and so on. This information made it possible to work out the number of locations in the sample tabulated, the number of titles in the sample, and the number of unique titles. The sample for the Ohio Union Catalog includes all of the letter A, and had been completed by Miss Mary E. Wilson, supervisor of the Union Catalog, before this survey was begun. The sample for the Philadelphia Union Catalogue includes the one tray used in Chapter II, and four similar analyses made independently by the Philadelphia Union Catalogue during the process of compilation. Raw data for all five trays were combined to provide a larger sample with which to work, but the percentages derived from the combined sample are not significantly different from the results derived from each of the five individual samples.

An examination of Table 37 now shows the average per cent of unique titles found in a regional union catalog to be 50. There is a good deal of variation from catalog to catalog, but except for the Westchester Union Catalog, that variation is not more than 12 per cent. Both the Westchester and the Nassau County union catalogs include many small public libraries

TABLE 37
RELATION OF UNIQUE TITLES TO TOTAL LOCATIONS
IN SIX REGIONAL UNION CATALOGS

<i>Union Catalog</i>	<i>Locations</i>	<i>Unique Locations</i>	<i>Per Cent</i>
Cleveland Regional Union Catalog	18,098	9,683	53.5
Union Library Catalogue of the Philadelphia Metropolitan Area	6,644	2,832	42.6
Ohio Union Catalog	68,643	35,716	52.0
Nebraska Union Catalog	3,815	2,354	61.7
Westchester Library Association Union Catalog	5,937	1,354	22.8
Nassau County Library Association Union Catalog	5,792	2,313	39.9
Total	108,929	54,252	49.8

and comparatively few college libraries, which accounts for the lower percentage of unique titles. The Nebraska Union Catalog also includes many small public libraries, but it includes, as well, quite a number of small college libraries and one university library. It is this single library that brings the Nebraska catalog's percentage of unique titles so high. No other library

in the region duplicates the kind of materials acquired by the university library.

The figure of 50 per cent represents the relation of the unique titles in the region to the total number of titles in the libraries of the region, without regard to the duplication of titles. When the duplication has been eliminated, as in Table 38, the percentage of unique titles rises to 75. That is, of the total number of different titles in the region, 75 per cent exist in one copy only. It is interesting here to compare this figure with the average of 61 per cent found by Newcombe¹⁷ to exist in the six British regional union catalogs shown in Table 39. The average of 61 per cent is a little suspect, since it is drawn from percentages and not from real numbers, but it is sufficiently different from the 75 per cent found in the United States to arouse some speculation. The conclusions of such speculation can only be that the British libraries included in these six regional union catalogs have duplicated titles to a considerably greater extent than have the American libraries included in the union catalogs shown in Table 38. This difference may in part be a matter of policy, and may in part be due to the fact that the British

TABLE 38
RELATION OF UNIQUE TITLES TO TOTAL TITLES
IN SIX REGIONAL UNION CATALOGS

<i>Union Catalog</i>	<i>Titles</i>	<i>Unique Titles</i>	<i>Per Cent</i>
Cleveland Regional Union Catalog	12,335	9,683	78.5
Union Library Catalog of the Philadelphia Metropolitan Area	3,981	2,832	71.1
Ohio Union Catalog	47,782	35,716	74.7
Nebraska Union Catalog	2,828	2,354	83.2
Westchester Library Association Union Catalog	2,455	1,354	55.2
Nassau County Library Association Union Catalog	3,314	2,313	69.8
Total	72,695	54,252	74.6

union catalogs include a greater proportion of public and county libraries than do the six American union catalogs studied, a factor that would tend to increase the per cent of duplication found in the regional union catalogs.

Hardly less important than the number of unique titles found in a region is the amount of duplication occurring when a regional union catalog is compiled. The first column in Table 40 represents the total number of cards reproduced from the several library catalogs, and Column 2 shows the number of cards discarded in the process of combining, or the amount of duplication. When this is reduced to a percentage, it is seen that the aver-

¹⁷ Luxmoore Newcombe, *Library Cooperation in the British Isles* (London: Allen & Unwin, 1937), p. 119.

age duplication for these six union catalogs was 33.3 per cent. It is interesting to note the inverse ratio existing between the amount of duplication and the per cent of unique titles shown in Table 37. It is best illustrated by

TABLE 39
PERCENTAGE OF BOOKS REPRESENTED BY A SINGLE COPY
IN SIX BRITISH REGIONAL UNION CATALOGS^a

Region	Number of Libraries	Percentage of Single Copies
Wales (National)	18	84.4
Northern	32	70.0
Wales (Cardiff)	24	66.6
East Midland	29	54.0
London	30	50.8
South-Eastern	51	40.2
Average per cent		61.0

^a Adapted from Luxmoore Newcombe, *Library Cooperation in the British Isles* (London: Allen & Unwin, 1937), p.119.

an examination of the two extreme cases, Nebraska and Westchester. The former is low in duplication, but high in unique titles, while exactly the converse is true for Westchester.

To give a further insight into the amount of duplication, Table 41 is presented to show how many copies of duplicated books are actually available in the several regions. Although the number varies somewhat from catalog

TABLE 40
PROPORTION OF DUPLICATE LOCATIONS IN
SIX REGIONAL UNION CATALOGS

Union Catalog	Locations	Duplicate Locations	Per Cent
Cleveland Regional Union Catalog	18,098	5,763	31.8
Union Library Catalogue of the Philadelphia Metropolitan Area	6,644	2,663	40.1
Ohio Union Catalog	68,643	20,861	30.4
Nebraska Union Catalog	3,815	987	25.9
Westchester Library Association Union Catalog	5,937	3,482	58.6
Nassau County Library Association Union Catalog	5,792	2,478	42.8
Total	108,929	36,234	33.3

to catalog, the general figure for the sum of the six samples shows that the average duplicated title is available in three different libraries in the region. Many titles in American libraries are not duplicated at all within certain specified regions, but those which are duplicated may usually be found in three different libraries in a particular region.

The duplication existing among the 11 regional union catalogs that it was

possible to check with the sample, is shown in Table 42, which was constructed in the same manner as Table 27. The Library of Congress Union Catalog is included for comparative purposes, to show the extent to which the titles recorded in the regional union catalogs are already included in the Library of Congress Union Catalog. This duplication between each regional union catalog and the Library of Congress Union Catalog is uniformly high, in no instance falling below the 73.1 per cent shown for the Philadelphia Union Catalogue. When the figures for the Library of Congress Union Catalog are averaged, it is seen that it holds 80.3 per cent of the titles held by the other union catalogs and that the other union catalogs hold only 9.2 per cent of the titles in the Library of Congress Union Catalog.

TABLE 41
AVERAGE NUMBER OF LOCATIONS FOR
EACH DUPLICATED TITLE

<i>Union Catalog</i>	<i>Duplicate Locations</i>	<i>Titles with Duplicate Locations</i>	<i>Locations Per Title</i>
Cleveland Regional Union Catalog	8,415	2,652	3.2
Union Library Catalogue of the Philadelphia Metropolitan Area	3,812	1,149	3.3
Ohio Union Catalog	32,927	12,066	2.7
Nebraska Union Catalog	1,461	474	3.1
Westchester Library Association Union Catalog	4,583	1,101	4.2
Nassau County Library Association Union Catalog	3,479	1,001	3.5
Total	54,677	18,443	3.0

Duplication between specific regional union catalogs is very closely related to the size of the catalogs. In general, the larger the catalog, the less will its holdings be duplicated in other regional union catalogs. Thus, the duplication between Cleveland and Philadelphia is 42.9 per cent, while the duplication between Westchester and Philadelphia is an even 70 per cent. Similarly, the duplication between Philadelphia and Cleveland is very nearly the same, or 39.8 per cent, whereas the duplication between Philadelphia and Westchester is only 8 per cent. The relation between the Philadelphia and Cleveland union catalogs may be regarded as fairly typical for regional union catalogs of approximately the same size that include the same type of libraries.

The index of inclusiveness and the index of duplication are again given in Table 43, which also shows the index of distinctiveness derived from these two measures. It is apparent at once that regional union catalogs, like the libraries they include, are distinctive in direct proportion to the number of titles each would contribute to a Library of Congress Union Catalog ex-

panded in the same manner as the sample of 2,445 cards was expanded to 3,682 cards, the rank-order correlation in this instance being a positive .993. Since the correlation between the catalogs as arranged and their rank according to the volumes in the libraries they include is a positive .91, it is possible to conclude that distinctiveness is a direct function of the catalog's size in volumes, and that the varying indexes of distinctiveness for each union catalog are due chiefly to the differences in the size of the catalogs.

Of the 11 catalogs checked with the sample only Cleveland and Philadelphia are comparable in size and type of libraries included. The duplication

TABLE 42
DUPLICATION AMONG TWELVE UNION CATALOGS^a

Union Catalog	Library of Congress	Philadelphia	Cleveland	Ohio	Providence	California	Nebraska	Oregon	North Carolina	Denver	Nashville	Westchester	Index of Duplication
Library of Congress	20.9	20.4	12.3	12.1	9.6	6.8	4.0	4.1	4.2	4.3	2.7	9.2	
Philadelphia	73.1	39.8	25.8	23.3	20.3	15.6	11.2	9.6	11.2	13.0	8.0	22.8	
Cleveland	76.8	42.9	42.9	25.5	25.9	20.2	13.4	11.1	13.9	12.8	9.1	26.8	
Ohio	74.6	44.8	69.2		32.3	30.3	27.4	18.6	11.7	18.2	18.2	13.2	32.6
Providence	91.6	50.5	51.1	40.2		33.7	25.4	18.3	13.3	14.9	18.9	14.9	33.9
California	92.2	55.7	65.9	47.8	42.7		30.6	23.1	14.5	25.1	20.0	18.8	39.7
Nebraska	81.1	52.9	63.6	53.4	39.8	37.9		27.2	18.4	28.6	25.2	21.4	40.9
Oregon	78.2	62.9	70.2	60.5	47.6	47.6	45.2		26.6	41.1	37.9	25.0	49.3
North Carolina	86.2	57.8	62.1	40.5	37.1	31.9	32.8	28.4		24.1	26.7	17.2	40.4
Denver	87.9	67.2	77.6	62.9	41.4	45.2	50.9	44.0	24.1		37.1	27.6	52.4
Nashville	91.3	79.1	72.2	63.5	53.0	44.3	45.2	40.9	27.0	37.4		25.2	52.6
Westchester	82.5	70.0	73.8	66.2	60.0	60.0	55.0	38.8	25.0	40.0	36.2		55.2
Index of Inclusiveness	80.3	36.3	39.1	28.1	23.1	21.1	17.4	12.4	9.5	12.3	12.3	8.9	

^a Instructions for reading. Select two union catalogs of interest, viz., Library of Congress and Philadelphia. Select upper cell common to both and read: "Of the titles in the Library of Congress Union Catalog, 20.9% are also in the Philadelphia Union Catalog." If reverse relationship is wanted, select lower cell common to both and read: "Of the titles in the Philadelphia Union Catalog, 73.1% are also in the Library of Congress Union Catalog." All relationships must be read horizontally.

between these two catalogs is approximately 40 per cent. No other comparable figures are available, but it seems likely that the creation of other union catalogs including a diversified group of libraries containing about 5,000,000 volumes would reveal a very similar amount of duplication between regions.

A duplication of 40 per cent between regions of the United States cannot be categorically termed high or low. In one sense it is remarkable that two not very distant regions in the same country should have acquired collections of books of which only 40 per cent are in duplicate, but complacency with a comfortable statistical measure is not in order. It is rather the job

of these two regions, as well as that of others which may be created, to examine the nature of the duplication that does exist, to discover whether it could not well be reduced to 30 or 20 per cent without materially harming the immediate availability of research materials within each region, and thus to make possible the purchase of materials not now available in either region

TABLE 43
RELATION OF TWELVE UNION CATALOGS TO EACH OTHER
ACCORDING TO AN INDEX OF DISTINCTIVENESS

<i>Union Catalog</i>	<i>Index of Inclusiveness</i>	<i>Index of Duplication</i>	<i>Index of Distinctiveness</i>
Library of Congress Union Catalog	80.3	9.2	71.1
Philadelphia Union Catalogue	36.3	22.8	13.5
Cleveland Union Catalog	39.1	26.8	12.3
Ohio Union Catalog	28.1	32.6	- 4.5
Providence Union Catalog	23.1	33.9	-10.8
California Union Catalog	21.1	39.7	-18.6
Nebraska Union Catalog	17.4	40.9	-23.5
Oregon Union Catalog	12.4	49.3	-36.9
North Carolina Union Catalog	9.5	40.4	-30.9
Denver Union Catalog	12.3	52.4	-40.1
Nashville Union Catalog	12.3	52.6	-40.3
Westchester Union Catalog	8.9	55.2	-46.3

or in the entire country. Some of the same sort of cooperative study can be profitably indulged in even by catalogs of differing sizes and types; any unnecessary duplication that can be pointed to can be eliminated by inter-regional cooperation, making available new funds for the purchase of materials currently not found in the United States.

CHAPTER 5: *Regional Union Catalogs: A Pattern for Their Development*

THAT THE CONCEPT OF REGIONALISM HAS GAINED GENERAL ACCEPTANCE IN American thinking and in American life needs no other substantiation than an indication of the many facets of our daily living that are somehow affected by its practice.

Regionalism is no longer merely an academic subject. The theoretical and historical aspects, therefore, become essentially phases of practical importance. For the nation has already been divided into numerous regions for many and varying purposes. There are regions of earlier historical significance. There are regions of newer administrative functions. There are regions of convenience and of necessity. There are regions of government and regions of commerce. There are regions of literary achievement and regions of agricultural adjustment. There are regions of land and of water, of forests and of minerals, of flora and of crops. There are regions of educational institutions and football arrangements; regions of wholesale trade and of Rotary and Kiwanis. There are regions within regions, subregions and districts. Within and among all these and many other manifestations, regionalism becomes a realistic framework of reference for research and study and a practical framework for planning and for adjustment in such areas as population development and policy, standards of living and work, the increase of wealth and well-being, the changing status of race and minority groups, the equalization of opportunity, the development and mastery of new "social frontiers."¹

Writing definitions of the regional concept has become a popular academic sport that need not be indulged here. No less than 41 varying concepts of the Region, written by 28 different authors, are cited by Odum and Moore in the work quoted above.² This points not so much to a confusion of ideas on the subject as it does to the fact that the characteristics of regions vary according to the frame of reference in which they are being used. Regions of government will differ from regions of commerce, regions of convenience will not coincide with regions of necessity, and regions of literary achievement will have different characteristics than regions of Rotary and Kiwanis. These many kinds of regions cited by Odum and Moore and

¹ Howard W. Odum and Harry Estill Moore, *American Regionalism* (New York: Henry Holt & Co., 1938), p.5-6.

² *Ibid.*, p.2.

the many others not specifically mentioned by them will not, of course, be mutually exclusive. Their characteristic and geographic boundaries will vary a good deal from function to function, but they will also have much in common, and as a group they must ultimately cover the same area, geographic and otherwise, even though the pattern of coverage varies for each particular manifestation of the regional concept.

The study and practice of regionalism is based on a number of fundamental assumptions which need to be understood if a broad program of regional planning on a national scale is to have its proper meaning and significance. One of these is that regionalism represents a striving toward a sense of balance and equilibrium that will serve to distribute responsibility over its proper area, and makes possible a coordinated effort while, at the same time, pressure of work and responsibility are placed upon as many shoulders as are needed. Thus the establishment of regional sales offices for a large corporation is a device for relieving the home office of an inordinate administrative load that is difficult and cumbersome to handle at a central point. The establishment of 12 federal reserve banks in as many regions is a device for spreading the control and administration of the nation's fiscal policies into the field, where the detail of a multitude of specific problems can be handled in a more direct manner. And the organization of regional football conferences makes possible a unified rivalry within the region that would be impossible to achieve if all games were scheduled on a national pattern. This striving for equilibrium is at once the bringing together of variant forces within a region to a meaningful balance, and the dissemination of national responsibility and authority over specific smaller units, more or less logically delineated, and better able to effectively meet and solve problems peculiar to their locality.

Another of the assumptions underlying the general concept of regionalism is that it implies local initiative in the formulation and solution of regional problems. State and regional planning committees were, for the most part, spontaneously organized to study the problems of the state or region that gave them birth, and to seek solutions within the means and capacities of their particular localities. That these planning committees were aided and abetted by the National Emergency Council and the National Resources Board does not negate the purely regional spark that gave their work life and meaning—and a certain measure of results. The national organization was interested only in assisting the state and regional committees in the solution of their particular problems, in making the experience of each available to all, and in coordinating their efforts sufficiently to prevent their working at cross-purposes. The sales offices mentioned above are under central direction, to be sure, but their staffs are made up locally of people familiar with local problems and methods who are able to bring to the national

organization the benefit of their specialized knowledge of the conditions of a particular locality.

Intimately related to this assumption that regionalism implies local effort and initiative is the implication that it promotes a decentralization of power and authority which, if followed through, will help make the several regions comparatively self-sufficient. Human, cultural, and physical resources of the region will be developed to their fullest—even while a broad policy of cooperation with other regions and localities goes forward. The authority delegated to the federal reserve banks in the field remains only nominally the authority of the Board of Governors of the Federal Reserve System in Washington. That authority may be recalled at any moment, to be sure; but while it is in effect, it is decentralized over the entire country, and is no longer concentrated in Washington. These three assumptions underlying regionalism are inextricably interrelated; each is dependent for its significance on the simultaneous existence and functioning of the other. Together they work toward a more stable and realistic democracy—toward a more equilibrated society, progressively developing its local ability and initiative as central authority becomes more and more decentralized.

The growth and development of the regional concept does not necessarily imply the decentralization of some power or authority or function that already exists on a national level. It may and frequently does have reference to the spontaneous and more or less simultaneous growth of certain phenomena in the region itself, or in several regions, without reference to similar phenomena in other places. Many metropolitan regions, for example, have developed, concurrently, according to the individual and peculiar regional forces that brought them into being, and without reference to the growth of other cities and regions of metropolitan influence elsewhere in the country. These regions begin to impinge on each other at a certain point in their development, but it is not until this point is reached that a national pattern begins to manifest itself. This national pattern may in large part be theoretical, having no existence in reality, but the mere fact that a number of regions have become more or less well-defined areas for the development of a particular function makes it possible to perceive a possible national unity growing out of the several regional developments.

Such a point has now been reached in the development of regional union catalogs in the United States. The pattern of existing union catalogs does not, of course, cover the country completely, but it is possible to point to nine adjoining Western states, some of whose libraries are included in as many as five regional union catalogs. On the Eastern seaboard, three of the New England states (two of them contiguous) have organized, and are operating, regional union catalogs, and in the Great Lakes area we are also faced with the problem of duplication of effort within a single region. Even where

regional union catalogs do not exist, indications of regional interest are apparent. No general regional union catalog has been compiled in Chicago, although no less than five subject union catalogs of library materials in that city have been created there. There is no union catalog in New York City, but two subject union catalogs have been established, and two counties in greater New York are covered by their own regional union catalogs. If the term "regional union catalog" is defined as a catalog of material about a certain region, five other regional union catalogs must be added to the list of 17 that have been defined as such by virtue of their inclusion of all the holdings of the libraries within a certain region. The elements of a pattern for regional union catalogs are present in the United States; we need only examine them with sufficient care to arrive at the formulation of a national pattern for the whole country. Such a pattern will involve no categorical imperative; there will be no indication that it should be thus and not so; it will merely show how a pattern of regional union catalogs for the United States might be worked out. Some other, or indeed any other, combination of units might work out as well or better, for the realm of possibility is infinite.

Looking first at Figure 3, page 101, it is at once apparent that regional union catalogs, both general and subject, are clustered in or below the Northeast quadrant of the United States, in the same general manner that Wilson found to be true for library resources in general, particularly when measured in terms of library centers.³ Fifty-seven of 77 library centers containing 500,000 volumes or more are located in this quadrant, which also contains 10 of the 17 general regional union catalogs and 16 of the 23 subject union catalogs.

These figures are interesting, too, when related to the six regions described by Odum⁴ and used by Wilson in his *Geography of Reading*. This has been done in Table 44, and shows again how the concentration of library resources, library centers, and union catalogs falls within the Northeast region. Only in the number of volumes included in general regional union catalogs does the Midwest region nose out the Northeast by 200,000 volumes.

Library of Congress depository catalogs likewise are clustered into the Northeast quadrant of the United States, as is seen in Figure 4, page 103, which also shows that 29 of these catalogs have been expanded to include the printed cards of other libraries. Four others have served as the basis for regional union catalogs. It has been fairly easy for librarians to yield to the temptation to file cards other than those from the Library of Congress into these depository catalogs, and in at least three large libraries they have be-

³ L. R. Wilson, *The Geography of Reading* (Chicago: American Library Association and the University of Chicago Press, 1938), p. 118-23.

⁴ H. W. Odum, *Southern Regions of the United States* (Chapel Hill: University of North Carolina Press, 1936).

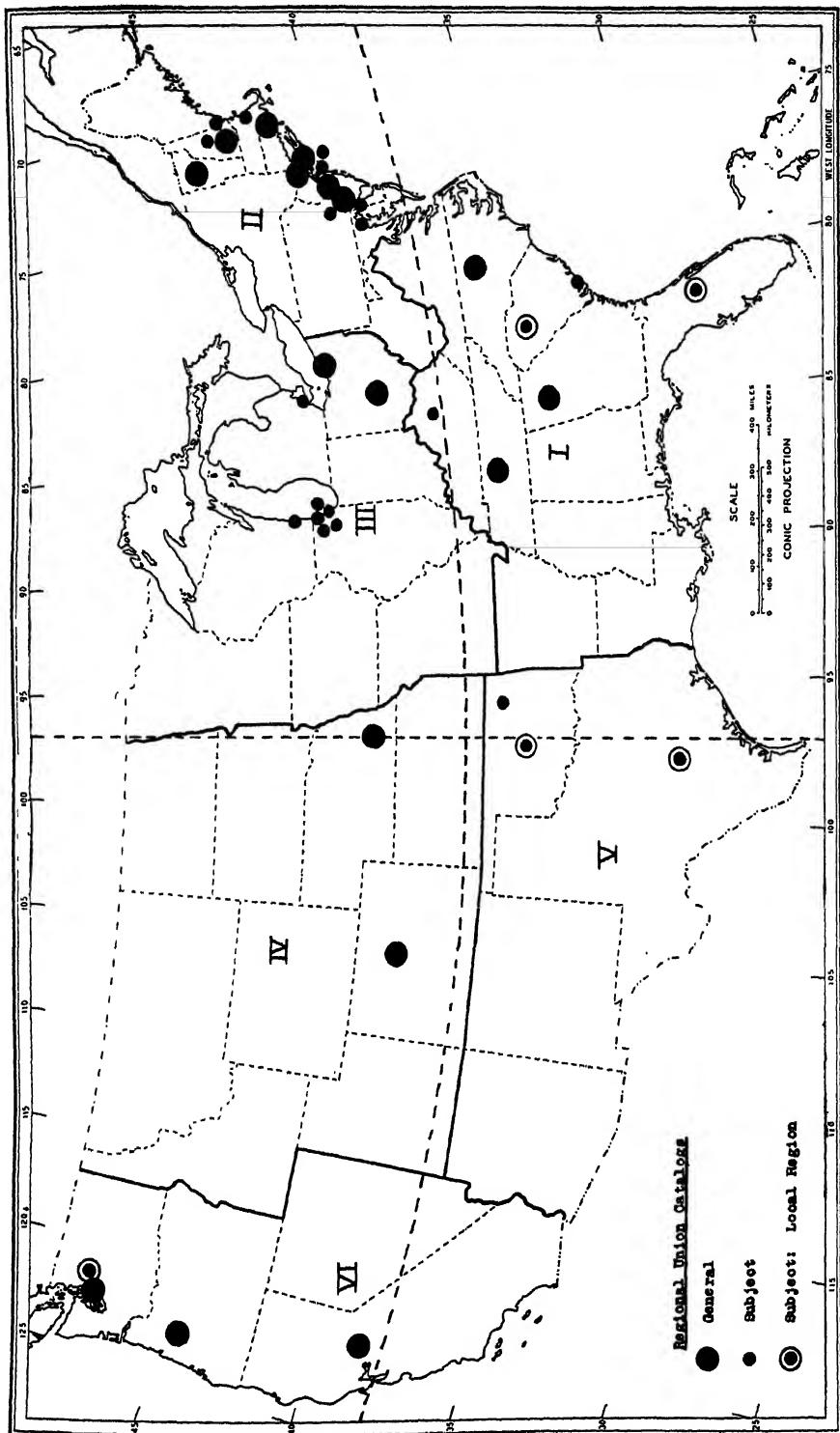


Fig. 3.—Regional union catalogs existing in the United States on September 1, 1941. Regions shown are those of Howard W. Odum as developed in his *Southern Regions of the United States* (Chapel Hill: University of North Carolina Press, 1936). Division of country into quadrants is adapted from Fig. 34 in L. R. Wilson's *Geography of Reading* (Chicago: American Library Association and the University of Chicago Press, 1938), p. 121. (Goodie Base Map, No. 110, published by the University of Chicago Press. Used with permission.)

UNION CATALOGS IN THE UNITED STATES

TABLE 44
REGIONAL DISTRIBUTION OF AMERICAN LIBRARY RESOURCES^a

Region	Population ^b	Library Centers	Regional Union Catalogs		Volumes		Included in 17 Regional Union Catalogs
			General	Subject	All Libraries ^c	Research Libraries ^d	
I. Southeast	28,261,829	8	3	4	5,578,000	18,094,000	6,179,000
II. Northeast	40,629,591	29	7	8	73,833,000	105,513,000	63,640,000
III. Midwest	35,741,574	24	2	7	35,885,000	60,024,000	29,683,000
IV. Northwest	7,410,435	3	2	0	3,537,000	12,984,000	9,429,000
V. Southwest	9,702,337	3	0	3	1,958,000	7,273,000	4,595,000
VI. Far West	9,843,509	10	3	1	18,077,000	24,860,000	2,416,000
Total	131,669,275	77	17	23	138,868,000	229,288,000	119,054,000
							28,850,000

^a Adapted from Table 38 in L. R. Wilson, *The Geography of Reading* (Chicago: American Library Association and the University of Chicago Press, 1938), p.122.

^b 1940 Census.

^c Sources: *The American Library Directory*, 1939, and *Special Libraries Directory*, 1935.

^d L. R. Wilson, *op. cit.*, p.124.

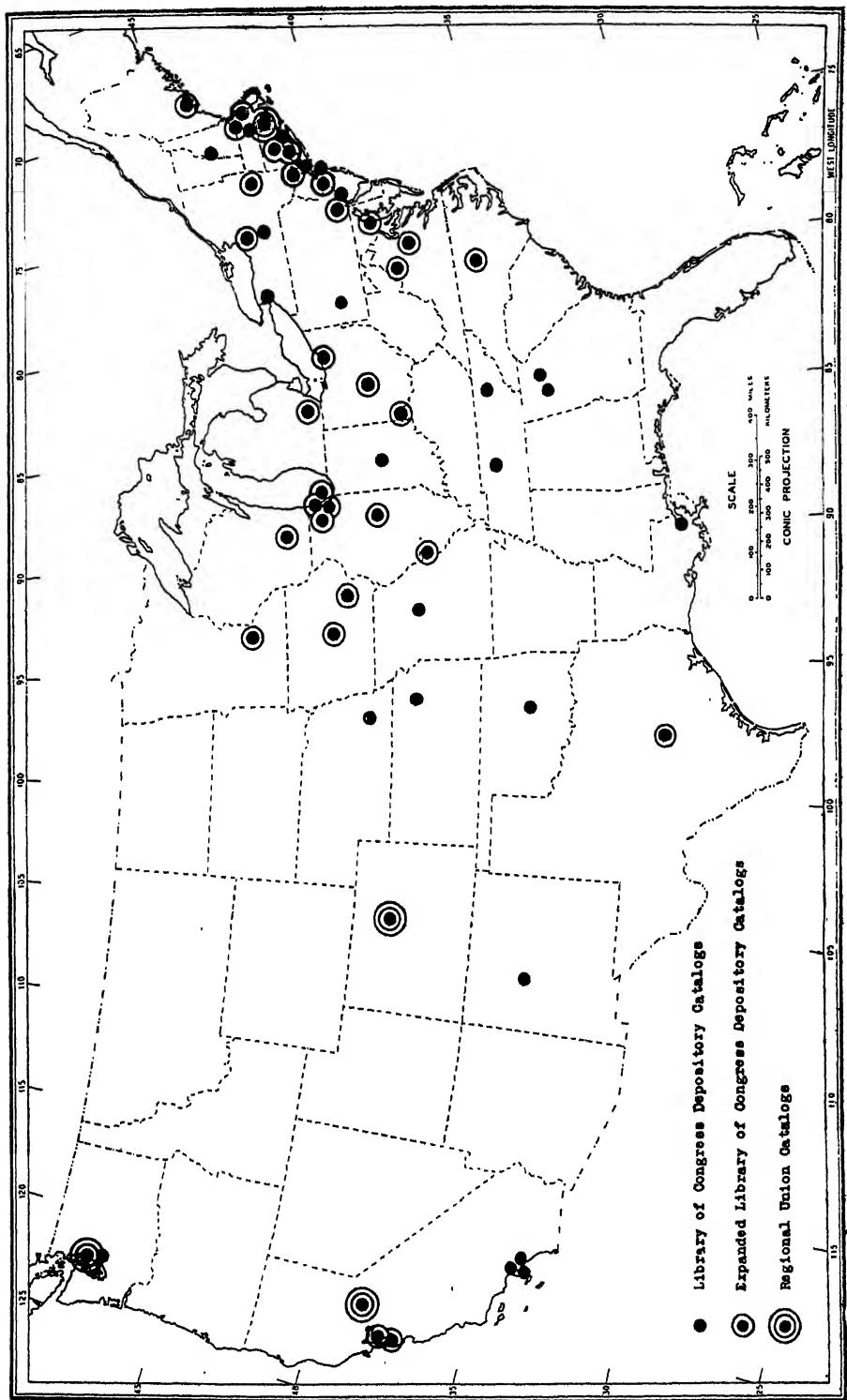


FIG. 4.—Depositories for Library of Congress cards, including those which have been expanded into Depository Union Catalogs and Regional Union Catalogs. Source: U.S. Library of Congress, Report of the Librarian of Congress for the fiscal year ending June 30, 1940 (Washington: Government Printing Office, 1941), p. 355-57. (Goode Base Map, No. 110, published by the University of Chicago Press. Used with permission.)

come part and parcel of the official catalog of the library. Since this tendency will probably continue, its implications for regional union catalogs should be examined. If the depository catalog forms the bibliographical basis of the regional union catalog, as is the case in Seattle and Denver, there can be nothing but commendation for the extension of the practice. The bibliographical perfection of the union catalog is immeasurably enhanced by having at hand the printed Library of Congress cards for comparison and for interfiling. Less detailed typed cards can be kept at a minimum; the catalog is correspondingly easier to use and a more efficient instrument.

Some care should be taken, however, that the union catalog retains its status as a regional union catalog, and is not subordinated to an official library catalog with which it may be interfiled. The advantages to a particular library are, of course, many and obvious, but the usefulness of the regional union catalog is probably somewhat hampered by the presence of a host of extraneous cards and temporary slips, and by the danger that cards will be removed for an indefinite period while the cataloging of a particular book is in process. If the shelf-number of the parent library is placed on the union catalog card, confusion results because of the lack of uniformity with other symbols on the card; if separate cards are filed for the holdings of the parent library, the catalog is made unnecessarily cumbersome. Furthermore, if the regional union catalog is allowed to become the official catalog of a particular library, the independent administration of the catalog becomes more and more difficult, if not impossible. The objectives of the regional union catalog and its wide possibilities for regional cooperation becomes subordinated to the exigencies of operating a particular library; the union catalog receives such attention as the library can spare, and gives such service as is demanded of it, with no margin of time or personnel for the possible study and expansion of regional resources.

We are now ready to look at and examine Figure 5, page 105, which shows, at once, the areas of the United States now covered by regional union catalogs and a pattern for the possible expansion of those areas into a complete system for the United States as a whole. Whether such an expansion toward the development of a complete network of regional union catalogs, showing the entire resources of the country, is desirable or probable is not of immediate interest; the problem here is one of presenting only one of many ways in which such a movement could develop, together with such estimates of cost as are possible from the experience reviewed in Chapter III.

In examining the map, it should be remembered that the shaded portions only indicate that some libraries in the states concerned are included in regional union catalogs, and not that all libraries in the states are so included. The number of libraries included in the union catalog varies from region to region, and even from state to state within a particular region.

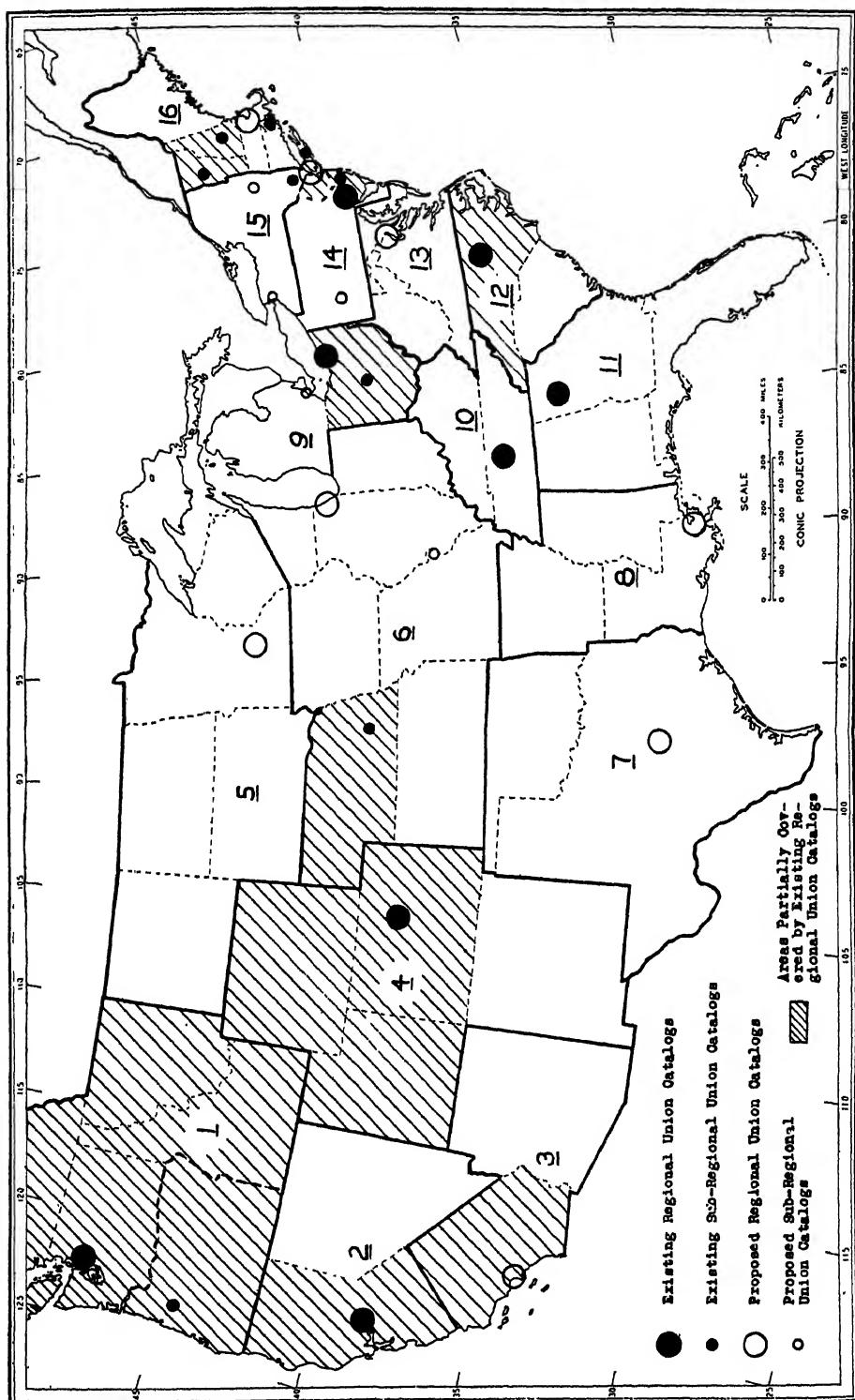


FIG.5.—Tentative pattern of union catalog organization in the United States showing areas covered by existing union catalogs and possible location of regional and subregional union catalogs. (Goodie Base Map, No.110, published by the University of Chicago Press. Used with permission.)

Thus, the Pacific Northwest Union Catalog includes most of the important academic and public libraries in the four states, while the Denver Union Catalog covers Colorado in the same manner, but contains only one library in Wyoming and one in Utah. The two union catalogs in Ohio cover the state quite thoroughly, though some libraries are not included in either catalog. Similarly, the Vermont union catalog was unable to include those libraries that are uncataloged, and the New Hampshire union catalog contains only the accessions since 1938 of the libraries included in the catalog. In California and New Jersey, the union catalogs are relatively complete only for the county libraries, since they include only a smattering of municipal library holdings—with the addition, in the case of California, of the printed cards of the University of California and Stanford University libraries. The point can best be summarized by saying that some libraries in the shaded areas are included in regional union catalogs, and that no libraries in the unshaded areas are so included. To this must be added the note that for local union catalogs such as those in Philadelphia, Nashville, and Atlanta, the shading is assumed to exist underneath the dot representing the catalog. Both Philadelphia and Atlanta represent areas in which the inclusion of libraries in the union catalog is most complete. Few indeed are the libraries in either of these cities which have escaped inclusion in their local union catalogs.

The use of the term "subregional union catalog," and the designation of certain existing and proposed union catalogs as subregional, will be fully explained in the detailed discussion that follows, but certain general considerations may be mentioned here. One of them is the fact that a library's inclusion in a regional union catalog implies an obligation to contribute, to that catalog, cards for its accessions. This obligation is not particularly hard to meet when contribution is made to only one regional catalog, but it might become a burden if a particular library were to be included in more than one. Such a situation is already developing in the Pacific Northwest, where it is planned to include in the Pacific Northwest Union Catalog some of the Oregon libraries already included in the Oregon Union Catalog. Contributions of accessions must obviously be continued to both catalogs, but it seems too much to expect the Oregon libraries to make the extra cards for this purpose. The solution appears to lie in considering the Oregon Union Catalog subregional, and in shifting to it the responsibility for forwarding the accessions of all Oregon libraries which it includes, to the Pacific Northwest Union Catalog in Seattle.

Since the planning and development of regional union catalogs are usually accomplished on more or less local levels because of the greater ease of getting local support, it may frequently happen that catalogs will be organized for rather circumscribed areas, areas which would more logically be con-

sidered portions of a much larger region. There is no reason to discourage such efforts just because the area is too small, but it should be recognized that in the event of the creation of a union catalog for a larger region, the prior and smaller catalog would necessarily become a subregional catalog whose responsibility would be to contribute cards for accessions to the new regional union catalog. This conception looks to the growth of union catalogs through a series of purely local efforts, one catalog after another falling into a regional pattern, and each including a number of subregions that contribute cards to their respective regional union catalog. If a national union catalog were then organized to include all of the regional union catalogs, these catalogs would be responsible for sending the accessions of all of their participating libraries and subregional union catalogs to the national union catalog.

THE SIXTEEN REGIONS

There is no magic in the number 16. It merely represents the number of regions evolved from a careful division of the country into areas that seem reasonable and logical units for supporting regional union catalogs. Particular boundaries between regions were determined partly by the existing boundaries of present regional union catalogs, partly according to spheres of metropolitan influence, and partly according to the convenience of state lines. This latter factor assumes much greater importance than it deserves, and it is probable that state lines should have been ignored in more than the four instances shown on the map, but convenience in counting library resources made it preferable to follow them whenever at all possible. The 16 regions are listed in Table 45, which shows the number of volumes held by the libraries in the states included in each region, and the cost of compiling each of the 16 regional union catalogs.

The area covered by the present Pacific Northwest Union Catalog is included in Region 1, for its boundaries represent natural delineations from the surrounding regions. None of the states would fall more logically into other regions, albeit Odum has separated Idaho and Montana from Washington and Oregon. Though Odum's economic and social indexes give ample reason for drawing regional boundaries in places different from those shown and described here, it must be remembered that Odum's six regions are too few and too large for the adequate planning of library resources. In addition, it has here been the policy to retain the integrity of established union catalog regions, for there seems little point in suggesting regions conflicting with those already in operation.

The Pacific Northwest Union Catalog, when it is completed, will include 3,744,000 volumes in the four states, leaving 2,937,000 of the volumes in the region outside the realm of the catalog. Most of these would probably, how-

TABLE 45
COST OF COMPILING SIXTEEN TENTATIVELY OUTLINED REGIONAL UNION CATALOGS INCLUDING ALL LIBRARIES IN THE UNITED STATES, AND THE COST OF COMPILING THEM IF ONLY RESEARCH LIBRARIES ARE INCLUDED

Region	State	Volumes in All Libraries in Thousands*			Volumes in Research Libraries in Thousands ^b			Cost in Thousands of Dollars ^c	Cost in Thousands of Dollars ^c
		Total	In Existing Union Catalogs	Net	Total	In Existing Union Catalogs	Net		
1	Idaho	598	143	455	\$ 11	208	103	105	\$ 3
	Montana (west)	873	189	684	17	186	120	66	2
	Oregon	2,510	1,652	858	22	1,471	1,292	0	0
	Washington	2,700	1,742	958	24			0	0
2	Total	6,681	3,726	2,955	\$ 74	3,157	2,986	171	\$ 5
	California (north)	9,842	0	9,842	\$248	4,944	0	4,944	\$125
	Nevada	350	0	350	9	116	0	116	3
	Total	10,192	0	10,192	\$257	5,060	0	5,060	\$128
3	California (south)	9,398	0	9,398	\$237	4,717	0	4,717	\$119
	Arizona	615	0	615	15	349	0	349	9
	Total	10,013	0	10,013	\$232	5,066	0	5,066	\$128
	Wyoming	590	92	498	\$ 13	133	92	41	\$ 1
4	Utah	891	107	784	20	306	107	199	5
	Colorado	2,495	937	1,558	39	1,423	765	658	17
	New Mexico	420	0	420	11	109	0	109	3
	Total	4,396	1,136	3,260	\$ 83	1,971	964	1,007	\$ 26
5	Michigan (north)	440	0	440	\$ 11	202	0	202	\$ 5
	Montana (east)	199	0	199	5	42	0	42	1
	North Dakota	656	0	656	17	290	0	290	7

TABLE 45—Continued

Region	State	Volumes in All Libraries in Thousands ^a			Volumes in Research Libraries in Thousands ^b			Cost in Thousands of Dollars ^c
		Total	In Existing Union Catalogs	Net	Total	In Existing Union Catalogs	Net	
6	South Dakota	907	0	907	\$ 23	264	0	\$ 7
	Minnesota	5,150	0	5,150	130	2,538	0	64
	Wisconsin (north)	1,103	0	1,103	28	501	0	13
	Total	8,455	0	8,455	\$214	3,857	0	3,857
	Nebraska	2,410	1,422	988	\$ 25	574	574	\$ 97
7	Kansas	3,364	0	3,364	85	1,168	0	\$ 0
	Iowa	5,320	0	5,320	134	1,360	0	29
	Missouri	5,212	0	5,212	131	3,274	0	34
	Wisconsin (south)	4,297	0	4,297	108	1,950	0	83
	Illinois	13,393	0	13,393	337	7,428	0	49
8	Indiana	6,338	0	6,338	160	1,788	0	187
	Total	40,304	1,422	38,882	\$980	17,542	574	1,788
	Oklahoma	1,907	0	1,907	\$ 48	482	0	45
	Texas	4,330	0	4,330	109	1,476	0	37
	Total	6,237	0	6,237	\$157	1,958	0	1,958
9	Arkansas	838	0	838	\$ 21	310	0	\$ 49
	Louisiana	1,415	0	1,415	36	718	0	8
	Mississippi	845	0	845	21	93	0	18
	Total	3,098	0	3,098	\$ 78	1,121	0	1,121
	Michigan (south)	6,225	0	6,225	\$157	2,860	0	2,860
9	Ohio	13,176	8,767	4,409	111	7,762	7,762	0
	Total	19,401	8,767	10,634	\$268	10,622	7,762	2,860

UNION CATALOGS IN THE UNITED STATES

TABLE 45—Continued

Region	State	Volumes in All Libraries in Thousands*				Volumes in Research Libraries in Thousands*				Cost in Thousands of Dollars*	
		In Existing Union Catalogs		Net	Cost in Thousands of Dollars*	In Existing Union Catalogs		Net			
		Total	In Existing Union Catalogs			Total	In Existing Union Catalogs				
10	Kentucky	1,835	0	1,835	\$ 46	840	0	840	\$ 21		
	Tennessee	2,428	782	1,646	41	982	580	402	10		
	Total	4,263	782	3,481	\$ 87	1,822	580	1,242	31		
11	Alabama	1,553	0	1,553	\$ 39	456	0	456	\$ 11		
	Georgia	1,905	900	1,005	25	517	385	132	3		
	Florida	1,274	0	1,274	32	31	0	31	1		
12	Total	4,732	900	3,832	\$ 96	1,004	385	619	15		
	North Carolina	2,474	707	1,767	\$ 45	880	600	280	\$ 7		
	South Carolina	978	0	978	25	307	0	307	8		
13	Total	3,452	707	2,745	\$ 70	1,187	600	587	15		
	Virginia	2,542	0	2,542	\$ 64	1,043	0	1,043	\$ 26		
	West Virginia	952	0	952	24	405	0	405	10		
14	Maryland	2,973	0	2,973	75	1,947	0	1,947	49		
	District of Columbia ^d	14,948	8,812	6,136	155	14,948	8,812	6,136	155		
	Total	21,445	8,812	12,603	\$ 38	18,343	8,812	9,531	\$ 240		
15	Pennsylvania	12,952	5,550	7,402	\$ 187	6,640	4,969	1,671	\$ 42		
	New Jersey	7,484	0	7,484	189	2,764	0	2,764	70		
	Delaware	458	0	458	12	119	0	119	3		
15	Total	20,394	5,550	15,344	\$ 388	9,523	4,969	4,554	\$ 115		
	New York	26,665	867	25,798	\$ 650	19,499	0	19,499	\$ 491		
	Total	26,665	867	25,798	\$ 650	19,499	0	19,499	\$ 491		

TABLE 45—Continued

Region	State	Volumes in All Libraries in Thousands*		Cost in Thousands of Dollars*	Volumes in Research Libraries in Thousands†		Cost in Thousands of Dollars*
		Total	In Existing Union Catalogs		Total	In Existing Union Catalogs	
16	Maine	3,125	0	\$ 79	840	0	\$ 21
	New Hampshire	2,668	0	67	749	0	19
	Vermont	1,730	1,080	16	333	333	0
	Massachusetts	21,535	0	543	10,781	0	272
	Rhode Island	2,602	0	66	1,282	0	32
	Connecticut	7,430	0	187	3,337	0	84
Total		39,090	1,080	\$ 958	17,322	333	\$ 428
Grand Total		229,288	33,749	\$4,930	119,054	27,965	\$2,295

* Sources: *The American Library Directory*, 1939 and *Special Libraries Directory*, 1935. Duplication eliminated.b Adapted from Table 39 in L. R. Wilson, *The Geography of Reading* (Chicago: American Library Association and the University of Chicago Press, 1938), p.124. Source: *The American Library Directory*, 1935. Research libraries are defined by Wilson to include: (1) all state libraries, (2) public libraries of over 250,000 volumes, (3) general college and university libraries of over 75,000 volumes, (4) technical college libraries of over 25,000 volumes, and (5) all other research collections.

d Based on unit cost of \$0.0252 per volume derived from unit cost of \$0.0584 per location developed in Chapter III and ratio of 2.32 volumes per title shown in Table 36, p.90.

d Wilson excludes the District of Columbia. It is here assumed that all libraries in the District are research libraries.

ever, have little research interest, for, of the 3,157,000 volumes in the research libraries⁵ of the region, only 171,000 are not included in the union catalog. Based on the unit cost of \$0.0584 per title developed in Chapter III for compiling a union catalog by the microphotographic method, it would cost \$5000 to include the remaining research libraries in the Pacific Northwest Union Catalog, and \$74,000 to include all of the remaining libraries in the region. In presenting these figures for this and the following regions it is assumed that the cost of adding new libraries to a regional union catalog is the same as the cost of compiling the catalog originally. Some variations may, of course, occur, perhaps in the direction of making the addition of new libraries more expensive, but they are not likely to be significant enough to materially alter these calculations.

Region 2 includes all of the state of Nevada and northern California, it being necessary to plan two regional union catalogs for California because of the five hundred miles that separate the two major library centers. Librarians in both San Francisco and Los Angeles, receptive enough to the union catalog idea, would consider no proposal that did not involve having a union catalog in both regions. Nevada is included with northern California because it falls naturally within the San Francisco metropolitan sphere of influence, and Odum, too, places it, in his Far West region, with California. A regional union catalog already exists for the state of California in the State Library in Sacramento, and this catalog has been allowed to stand on the map. It has, however, been so handicapped by insufficient funds and by spotty coverage of the libraries it includes that adaptation to the obligations and responsibilities of a true regional union catalog would be tantamount to reconstructing the catalog. Its location is also not quite happy, for the regional union catalog can be of immediate assistance to a greater number of libraries if it is located in a large metropolitan center. For these reasons, the 1,500,000 volumes it is estimated to contain have not been deducted from the figures of library resources for California, nor from the estimates of the cost of compiling a regional union catalog in northern California. Such a union catalog, located in San Francisco or in Berkeley, would include 5,060,000 volumes in research libraries in northern California and Nevada, or 10,192,000 volumes in all libraries in the two states. The respective cost of compiling a union catalog for each of these groups of libraries would be \$128,000 and \$257,000.

Southern California is included in Region 3 with the state of Arizona,

⁵All figures for volumes in research libraries are drawn from Table 39 in L. R. Wilson, *The Geography of Reading* (Chicago: American Library Association and the University of Chicago Press, 1938), p.124, and are based on *The American Library Directory*, 1935, and the following definition: "Research libraries include: (1) all state libraries, (2) public libraries of over 250,000 volumes, (3) general college and university libraries of over 75,000 volumes, (4) technical college libraries of over 25,000 volumes, and (5) all other research collections."

most of which is drawn to Los Angeles by the "major metropolitan influence"⁶ of that city. The proposed union catalog would be located in Los Angeles, where some planning for a regional union catalog for southern California is already underway.⁷ If a union catalog for the region were to include only the 5,066,000 volumes in research libraries, it would cost \$128,000; otherwise the 10,013,000 volumes in the region would involve the expenditure of \$252,000 for a complete regional union catalog. The almost exact correspondence in size and cost between these two regions is notable for its indication of how evenly library resources are divided between the two regions. The fact that Arizona libraries have more volumes than Nevada libraries is offset by the slightly greater concentration of resources in northern California. Ideally, all of the 16 regions in the United States would contain about an equal number of volumes, as is the case with these two regions, but other considerations make such an equitable distribution impossible.

Even though no library in New Mexico has as yet been included in the Denver Union Catalog, the New Mexico Normal University library is one of the sponsors of the Bibliographical Center for Research—Rocky Mountain Region, a fact that indicates New Mexico's adherence to Region 4. Two libraries in Utah and two in Wyoming are also listed among the sponsors, but only one library in each state has been included in the union catalog, which to date is made up almost entirely of the holdings of Colorado libraries. Even though Odum places New Mexico in his Southwest Region instead of in the Northwest Region into which the other three states fall, there is reason in terms of major metropolitan influence for including New Mexico in the same region with Denver. The fact that a New Mexico library is a sponsor of the Denver Bibliographical Center is but one of several indexes of this influence. The Denver union catalog now includes 1,136,000 volumes, of which 964,000 are in research libraries. Other research libraries in the region hold 1,007,000 volumes which it would cost \$26,000 to include in the union catalog. All other libraries in the region hold 3,260,000 volumes, whose inclusion in the union catalog would cost \$83,000.

Three whole states and portions of three more are included in Region 5 in which there is at present no union catalog. The proposed union catalog would be located in the twin cities, since the entire region from the Rocky Mountains to Lake Michigan is dominated by Minneapolis and St. Paul as the major metropolitan influence. All of the libraries in the region hold 8,455,000 volumes, whose inclusion in a regional union catalog would cost \$214,000, but a union catalog composed only of the research libraries would

⁶ This term, used throughout this analysis, is drawn from U.S. National Resources Committee, *Regional Factors in National Planning and Development* (Washington: Government Printing Office, 1935). Discussion and map on p.157-59 have been particularly helpful.

⁷ Association of Colleges and Universities of the Pacific Southwest, Committee on Union Library Catalog, Los Angeles Region, *Bulletin*, No.1, December 16, 1940. (Mimeoographed.)

include only 3,857,000 volumes at a cost of \$97,000.

Region 6 covers six Middle Western states and the lower portion of Wisconsin. Its regional union catalog would be located in Chicago, where five regional catalogs for special subjects in Chicago libraries, are already in existence. The region is in all probability too large for adequate administration from Chicago, but none of the other library centers in the region seem important enough to justify the construction of additional regional union catalogs. The difficulty may be met, in part, by considering the creation of a subregional catalog in St. Louis, and the expansion of the present regional union catalog in Lincoln into a subregional catalog covering both Nebraska and Kansas, and perhaps the western portions of Iowa and Missouri. The usefulness of this subregional catalog might be enhanced by removing it from Lincoln to Kansas City, where it would be immediately accessible to a much larger population. The subregional catalog in St. Louis could include a portion of southern Illinois and Indiana, thus relieving the regional catalog in Chicago of the burden of a considerable number of small libraries. Both subregional catalogs would receive accessions from the libraries in their respective sections, and would transmit all new titles so received to the regional catalog in Chicago. There are 40,304,000 volumes in the libraries located within Region 6, and the compilation of a union catalog including the 38,882,000 volumes not already recorded in the Nebraska union catalog, would cost \$980,000. For the 16,968,000 volumes in research libraries outside of the state of Nebraska, the cost of compiling the regional union catalog would be \$427,000. These figures assume the compilation of one regional catalog at Chicago, without the two subregional catalogs suggested above. Their compilation in addition to the regional catalog would bring these costs somewhat higher.

Region 7 is delineated from Region 8 chiefly because of the size of the state of Texas and the fact that the two regions contain library centers approximately equal in size but five hundred miles apart. Oklahoma is here included with Texas because of Odum's arrangement, but the National Resources Board places it almost entirely within the metropolitan influence of St. Louis. It is obviously a state that could well fall either way in its possible inclusion in a regional union catalog, but the fact that its 2,000,000 volumes make a much greater contribution to a regional union catalog in Austin than to one in Chicago or St. Louis is reason enough for including it with Texas. Together, the two states have 6,237,000 volumes which would cost \$157,000 to incorporate into a regional union catalog. Their research libraries contain 1,958,000 volumes, the union cataloging of which would cost \$49,000.

Arkansas is also within the metropolitan influence of St. Louis according to the National Resources Board, and in the Southeastern region according

to Odum, who is again followed in describing the boundaries of Region 8. The 838,000 volumes in Arkansas libraries make a much greater contribution to the proposed union catalog in New Orleans than they would to a regional catalog located in St. Louis or Chicago. Mississippi is included here because of its greater proximity to New Orleans than to Atlanta, in whose sphere of metropolitan influence it is placed by the National Resources Board. Plans are already under way for the compilation of a regional union catalog in duplicate, to be located in Baton Rouge and in New Orleans and to include libraries in southern Louisiana.⁸ Its expansion to cover all of the three states either at the time of its compilation or at a later date would not be difficult. The compilation of a regional union catalog including all of the 3,098,000 volumes in the region would cost \$78,000; if the union catalog were limited to research libraries and their 1,121,000 volumes, the cost would be \$28,000.

The story of Region 9 is made somewhat difficult by the existence of two regional union catalogs in the state of Ohio, and the probability that a sub-regional catalog is needed in Detroit. The fact that the University of Michigan Library is already included in the Cleveland Union Catalog further complicates the situation. To suggest that the two catalogs should be consolidated is to no purpose, for even if one or the other should consent to taking on the additional burden of the other catalog, there is almost no possibility that either of the sponsoring institutions would give up its own catalog. Nevertheless, some readjustment is in order that will make all of Ohio resources available in Cleveland, and that will obviate the present obligation of five Ohio libraries to send accessions to two union catalogs.

A possible solution lies in making the Ohio union catalog in Columbus a subregional union catalog for the public libraries of Ohio, while the Cleveland union catalog becomes the regional catalog for the state and for lower Michigan. All public libraries in Ohio would continue to send their accessions to Columbus, which would then send cards for all new titles to the Cleveland union catalog. The special libraries now in the Ohio union catalog would henceforth send their accessions to Cleveland, and the public libraries in and near Cleveland would henceforth send their accessions to Columbus. Since only 30.8 per cent of the titles in the Ohio union catalog in Columbus are not in the Cleveland union catalog, the inclusion of all of these titles in the Cleveland union catalog could be accomplished by sending successive trays to Cleveland for checking. The public library union catalog would thus remain available in the state library for interlibrary loan purposes, and the Cleveland union catalog would have a complete record of Ohio library resources for study and development. Another subregional catalog could well be created in Detroit for lower Michigan, albeit there is

⁸ Briefly mentioned in "News from the Field" in *College and Research Libraries*, I (1940), 360.

no reason why another full regional union catalog should not be created there. Although it would cost \$268,000 to bring all of the 10,634,000 volumes in Region 9 into an existing union catalog, it would cost only \$72,000 to union catalog the 2,860,000 volumes in research libraries not yet included in either of the Ohio union catalogs.

Region 10, limited to Kentucky and Tennessee, is a comparatively small region for union catalog development, but the existence of other union catalogs to the south and east made it necessary to include only these two states, both of which fall into Odum's Southeast Region. The expansion of the union catalog in Nashville to include the other research libraries in the two states, would increase the volumes included in the catalog by 1,242,000, and would cost \$31,000. If all libraries in the two states were added, the cost would be \$87,000, and 3,481,000 volumes would be added to the union catalog.

Although here limited to Alabama, Georgia, and Florida, Region 11 could almost as logically include South Carolina as well, but it seemed unwise to split the (geographical) affinity of the Carolinas. Indeed, most of Regions 10, 11, and 12 could receive adequate service from one regional union catalog in Atlanta, but the existence of three union catalogs in this southern region has made it necessary to distinguish between these three separate regions. Consideration of two of them as subregions of a larger region centered in Atlanta was not possible because in each of the three cases the union catalog is an instrument of library cooperation among a number of specific institutions, making it unwise to reduce them to subregional status. The 619,000 volumes in research libraries not included in the Atlanta union catalog would cost \$15,000 to add, and the addition of the 3,832,000 volumes in all the libraries not already a part of the Atlanta catalog would cost \$96,000.

The situation in Region 12 is somewhat complicated by the fact that the North Carolina union catalog is generally assumed to include the holdings of both Duke University and the University of North Carolina. This is not precisely true. The catalogs of both universities were copied, of course, but instead of being filed together, they were merely exchanged. The catalog of the University of North Carolina is located in the Duke University library, and the Duke University library catalog is located in the library in Chapel Hill. Into this latter catalog have been filed the cards of a number of other North Carolina libraries, creating what is now known as the North Carolina union catalog. It does not, however, include the holdings of the University of North Carolina, and the cost figures given here for compiling a complete union catalog include allowances for copying the University of North Carolina catalog again, for filing into the union catalog. The cost of including the 587,000 volumes in the additional research libraries in the two states

would be \$15,000, while the cost of including the 2,745,000 volumes in all of the libraries not now covered, would be \$70,000.

Region 13 is composed of the three states immediately surrounding the nation's capital, where the Library of Congress Union Catalog could very well serve as the regional union catalog. Indeed, it is already performing a portion of that function now. Approximately 600,000 titles in 18 Washington libraries have been filmed, and are now being transcribed on cards for filing in the Union Catalog. And the University of Virginia library, as part of its recataloging routine, has been sending cards for all of its holdings to the Union Catalog. Since the Union Catalog also contains cards for the holdings of the Library of Congress, it is apparent that it already has considerable status as a regional union catalog in addition to its function as a national union catalog. If we assume that the Washington and Virginia cards have already been filed into the union catalog, the cost of including the 9,531,000 volumes in the remaining research libraries in the region would be \$240,000. If all other libraries were to be included, the cost of union cataloging the 12,603,000 volumes would be \$318,000.

The state of New Jersey could as logically have been placed in Region 15 as with Pennsylvania and Delaware in Region 14, and the dotted line on the map in Figure 5 leaves both possibilities open. Its consideration here as a part of Region 14 is predicated on the fact that its library resources would make a greater contribution to the union catalog in Philadelphia than they would to a catalog in New York. The subregional catalog suggested for Pittsburgh might more reasonably be considered a subregion to the Cleveland union catalog than to the catalog in Philadelphia, at least from the viewpoint of geographic distance. But Odum segregates Ohio from Pennsylvania, and this precedent is followed here. The New Jersey union catalog is not yet functioning as such, and includes the complete holdings of only a very few libraries; it has, therefore, not been considered in the following figures. Some 4,554,000 volumes in research libraries not already in the Philadelphia union catalog, would cost \$115,000 to include, and the inclusion of the 15,344,000 volumes in all of the remaining libraries would cost \$388,000.

Only New York State is included in Region 15. Subregional union catalogs are suggested for Buffalo and Albany to relieve the administrative burden of a regional union catalog in New York City. A union catalog composed of the research libraries in the state, and the 19,499,000 volumes they hold, would cost \$491,000 to compile; if all libraries in the state were included, the cost of compilation would be \$650,000.

Despite the fact that three regional union catalogs already exist in Region 16, it seems preferable to locate the union catalog for the region in Boston, where it can be of immediate service to a larger number of libraries. Liter-

ally all roads in New England lead to Boston, and communication between this metropolitan center and all points in the region is fast and convenient. All of the three existing union catalogs could well serve as subregional catalogs, with the possible exception of the catalog in Providence. This union catalog has been so inextricably involved with the official catalog of Brown University library that it would be unwise to record any other library's holdings in the same file of cards. For similar reasons the volumes included in the Providence union catalog have not been considered in working out the calculations below; if a union catalog were to be compiled in Boston for Region 16, the cost of including the Providence union catalog would be very similar to the cost of including each of the Providence libraries. The volumes in the New Hampshire union catalog have been omitted from consideration because none of the libraries are completely represented, making it necessary to copy the entire catalogs of these libraries if a complete union catalog were contemplated. A union catalog of the research libraries of the region, which contain 16,989,000 volumes, would cost \$428,000 to compile. If the 38,010,000 volumes in all of the libraries were included, the union catalog would cost \$958,000.

TABLE 46

RELATION OF RESEARCH LIBRARIES TO ALL LIBRARIES IN THE UNITED STATES WITH RESPECT TO THEIR SIZE IN VOLUMES, AND THEIR INCLUSION IN REGIONAL UNION CATALOGS

	All Libraries ^a	Research Libraries ^b	Per Cent Research Libraries Are of All Libraries
Total volumes	229,288,000	119,054,000	51.9
Volumes included in union catalogs	33,749,000	27,965,000	82.9
Volumes not included in union catalogs	195,539,000	91,089,000	46.6
Cost of including volumes not in union catalogs ^c	\$4,930,000	\$2,295,000	46.6

^aSources: *The American Library Directory*, 1939, and *Special Libraries Directory*, 1935. Duplication eliminated.

^bAdapted from Table 39 in L. R. Wilson, *The Geography of Reading* (Chicago: American Library Association and the University of Chicago Press, 1938), p.124. Source: *The American Library Directory*, 1935. Research libraries are defined by Wilson to include: (1) all state libraries, (2) public libraries of over 250,000 volumes, (3) general college and university libraries of over 75,000 volumes, (4) technical college libraries of over 25,000 volumes, and (5) all other research collections.

^cBased on unit cost of \$0.0252 per volume derived from unit cost of \$0.0584 per location developed in Chapter III and ratio of 2.32 volumes per title shown in Table 36, p.90.

The figures given in Table 45, and used in the foregoing estimates of the cost of setting up these 16 regional union catalogs, are summarized in Table 46. It is interesting to note that the union catalogs already in existence have emphasized the inclusion of research libraries. Although the volumes in research libraries represent only 52 per cent of the total volumes in the country, a full 82 per cent of the volumes included in present regional union catalogs are held by research libraries. This is the reason that the cost of

including only the research libraries in these 16 regional union catalogs is 5 per cent less than the actual difference in the number of volumes held by research libraries and all libraries would indicate. It would, then, cost \$2,295,000 to bring all of the research libraries not now included in regional union catalogs into a national system of regional union catalogs. If all libraries in the United States were to be included, the cost would be a little more than twice that figure, or \$4,930,000.

A NATIONAL UNION CATALOG?

The logical culmination of this national system of regional union catalogs would be the creation of a national union catalog which would include all of the regional union catalogs, and to which each of the regional catalogs would report their accessions. Such an arrangement would obviate the present self-imposed obligation of nearly 100 libraries to send cards for their important accessions to the Library of Congress Union Catalog. These libraries, like all other libraries in the country, would be regularly contributing cards for all of their accessions to their regional union catalog, and the transmission of accessions to the national union catalog would be the responsibility of the regional union catalog. The national union catalog would thus have a record of every item that has been cataloged by any library in the country, and would no longer need to depend on various libraries' subjective definition of "importance" for the nature and quantity of the cards it would receive. The catalog would contain much dross, to be sure, but so it does now, for the accession of books by copyright is no criterion of their value, and the usual library policy of supplying cards to the Union Catalog for books for which Library of Congress cards are not available is hardly more so. The fact that such a national union catalog would contain a good many "worthless" titles must be faced as a natural and necessary concomitant of having an index to the country's entire library resources. Not all of the titles will be called for, but since it is difficult to say with absolute certainty which titles will never come within the ken of research needs, it would be preferable to garner into a national union catalog all of the titles the nation's libraries have cataloged.

The present Library of Congress Union Catalog was found to contain about 6,000,000 titles to which the addition of the entire resources of 130 libraries and union catalogs would add nearly 4,000,000 titles more, to make a total of approximately 10,000,000. It was found that the addition of the first 88 of these libraries and union catalogs would account for more than 3,000,000 of these titles, and that the remaining 41 libraries would each add to the Union Catalog a number of titles equivalent to less than one tenth of one per cent of the titles already in the catalog. The sampling procedure described in Chapter IV was applied to all union catalogs which have been

completed, to all of the large general libraries in the United States, and to a representative sample of important special libraries. Including the libraries whose holdings are represented in the 11 union catalogs, more than 500 libraries were included in this sampling of library resources. Since the contribution of new titles to the Union Catalog was found to be in a large measure a function of size, since all of the large libraries in the country have been included in this sampling procedure, and since the percentage of new titles added to the Union Catalog dropped off sharply after the first 10 or 15 large libraries were (hypothetically) added to the Union Catalog, it seems reasonable to assume that the addition of all other libraries in the country would not increase the number of titles in the Union Catalog to an appreciable degree over the estimated 10,000,000.

Such a complete national union catalog could very easily be compiled with the microphotographic method by copying the card catalogs of all the libraries in the United States. If the project were delayed until a complete system of regional union catalogs had been established, it could be accomplished by filming only the regional union catalogs. Or a combination of these two procedures could be utilized, as would be necessary if the job were to be done now. This latter method will be described first, for it is of the greatest immediate interest.

The total number of volumes in American libraries was found in Table 45 to be 229,288,000 volumes. If this number is divided by 2.32, the number of volumes per title found to obtain at five regional union catalogs,⁹ it may be assumed that the sum of all the titles or main entries in American libraries is 98,831,000. The number of volumes already included in regional union catalogs was shown in the same table to be 33,749,000. Of these, 8,812,000 are already in the Library of Congress Union Catalog as well, and their main entries need not be copied again in the formation of a national union catalog. When these volumes are subtracted from the 33,749,000 volumes in regional union catalogs, the net number is 24,037,000, which, when divided by 2.32, gives a total of 10,361,000 titles already included in regional union catalogs, but not in the Library of Congress Union Catalog. These 10,361,000 titles must now be regarded as locations, for the duplication among them, 33 per cent,¹⁰ reduces the number of titles actually in the regional union catalogs to 6,942,000. The difference between 10,361,000 and 6,942,000 is 3,419,000, the number of main entries that need not be copied again in the compilation of a national union catalog. If we now divide the 8,812,000 volumes already in the Library of Congress Union Catalog by 2.32 to find the number of titles already there, the result, 3,798,000, may be added to 3,419,000 to provide a total of 7,217,000 main entries that

⁹ Cf. p.89-90.

¹⁰ Average duplication in six regional union catalogs. Cf. p.98.

will not need further attention. This number, subtracted from 98,831,000, results in a figure of 91,614,000 main entries that must be copied at a cost of \$0.0584 per title,¹¹ or \$5,350,000. If it is desired to limit the national union catalog to volumes in research libraries, the cost, similarly derived, would be \$2,616,000.

Should it prove possible to delay construction of the national union catalog until the entire country has been covered by a network of regional union catalogs, the cost of compiling the national catalog would be somewhat less, for the 33 per cent factor of duplication could be applied to all of the 98,831,000 locations in all libraries, or 51,316,000 locations in research libraries. This would result in the need for copying only 66,217,000 titles in all libraries, or 34,382,000 titles in research libraries, at a cost of \$3,867,000 and \$2,008,000, respectively. All of these costs are based on the assumption that the whole series of operations described in Chapter III, and included in the unit cost of \$0.0584 per location, would be necessary in the compilation of a national union catalog. Actually, however, the procedure would necessarily be varied somewhat by the fact that the duplication found in the creation of a national union catalog would be much more than the 33 per cent found in the compilation of regional union catalogs. This would be true because of the fact that so many important titles in libraries all over the country are already in the Library of Congress Union Catalog; the duplication might indeed amount to as much as 95 per cent, for less than 5 per cent of the 98,831,000 titles in the country are needed to bring the Library of Congress Union Catalog to the estimated total of 10,000,000 titles.

It would therefore be more economical to compare each film directly with the Union Catalog before any of the cards were typed. Locations could be added directly to cards already in the Union Catalog, and typing would be necessary only for the 5 per cent of the titles not already there. This economy could, however, very well be more apparent than real, at least so far as the total unit cost is concerned. There is at present no data bearing on the speed with which a film could be compared with so complicated an instrument as a national union catalog, and the cost of editing so large a union catalog would be much more than the one-half cent per card that was allotted in the unit cost of \$0.0584. For these reasons the unit cost for compiling a national union catalog has been retained at the figure worked out for regional union catalogs as being a substantially accurate approximation of the cost of compiling a national union catalog.¹²

¹¹ Cf. Chapter III.

¹² Rumor has it that a new method of facsimile reproduction based on the principle of the photoelectric cell is about to be perfected. It would reproduce catalog cards on a thin bond paper at an estimated cost of one-half cent a card, including labor. This device, if it is perfected, would eliminate the first four operations in the microphotographic method shown in Table 14, which now cost \$0.0359 per location. Apparently the saving would be considerable.

UNION CATALOGS IN THE UNITED STATES

Estimating the cost of maintaining such a national union catalog is more difficult, for the data available are extremely limited. Only three of the regional union catalogs have been in operation long enough to be able to supply records of the number of accessions received from their participating libraries during a year. The figures shown in Table 47 vary greatly from catalog to catalog, but the average accessions per 1,000,000 locations derived from the addition of Columns 1 and 3 is used here because no better estimate is available. It is rounded off to an even 25,000 cards per 1,000,000 locations in the union catalog to make it a more convenient multiplier.

TABLE 47
NUMBER OF ACCESSIONS RECEIVED ANNUALLY BY
THREE REGIONAL UNION CATALOGS

<i>Union Catalog</i>	<i>Locations</i>	<i>Accessions</i>	<i>Accessions Per 1,000,000 Titles</i>
Philadelphia	3,230,000	67,534	20,900
Cleveland	2,737,000	69,223	25,300
Nebraska	699,000	31,427	45,000
Total	6,666,000	168,184	25,200

The annual cost of maintaining a national union catalog is worked out in Table 48 for a union catalog including all libraries, and also for one limited to research libraries, the figures being \$101,000 and \$52,000 respectively. This cost is almost equally divided between the libraries which prepare the card, and the union catalog which files it. The cost would be somewhat less

TABLE 48
ESTIMATED ANNUAL COST OF MAINTAINING
A NATIONAL UNION CATALOG

	<i>Volumes</i>	<i>Locations*</i>	<i>Accessions</i>	<i>Cost^b</i>		
				<i>Total</i>	<i>To Libraries</i>	<i>To Union Catalog</i>
All libraries	229,288,000	98,831,000	2,471,000	\$101,000	\$53,000	\$48,000
Research libraries	119,054,000	51,316,000	1,283,000	52,000	28,000	24,000

^aDerived by dividing volumes by 2.32, the ratio of volumes to titles in five regional union catalogs. Cf. p. 89-90.

^bDerived from cost of \$0.0408, of which \$0.0216 is spent by libraries in preparing card, and \$0.0192 by union catalog in filing it. Cf. p. 47-51.

for the accessions coming from existing regional union catalogs, for these catalogs would in their normal routine eliminate the duplication of 33 per cent, which in regions not covered by union catalogs would not be eliminated until the cards reached the national catalog. The actual cost might very well be somewhat higher than that given, because of the greater expense

of filing cards into a much larger catalog than any included in the development of the unit cost used here. The cost of necessary editing might also be more, perhaps a great deal more, than the one-half cent per card included in this cost figure.

Using existing regional union catalogs where possible, the cost of compiling a national union catalog of all libraries in the United States would be \$5,350,000; its maintenance would cost the libraries and the union catalog another \$101,000 each year. If the catalog were limited to research libraries, the figures would be \$2,616,000 and \$52,000 respectively. If more regional union catalogs are compiled before the compilation of a national union catalog is undertaken, the cost of compiling the national union catalog would be somewhat lower, for each regional union catalog reduces by 33 per cent the number of titles that need to be copied for the national union catalog. Annual maintenance cost would also be somewhat less, for the regional union catalogs would eliminate 33 per cent of the cards that would otherwise go to the national union catalog for handling.

The national union catalog should be able to answer two questions. One of them is the simple request for the location of a particular item in a library as near to the user of the book as possible. The other implies a desire to study the distribution of library resources in terms of particular books, or in terms of particular classes of material, and can best be phrased thus: "In how many regions is this book or group of books available?" Both questions can be answered by the same set of location marks on the cards in the national union catalog, and it should in no instance be necessary to use more than 16 such marks on any one card. If we assume that a microfilm or some other form of copy of each regional union catalog is brought to the national union catalog for checking, it would be necessary to add to the national catalog card only one of the locations shown for that title in each region. This location, let us say that it is for the University of Michigan in Region 9, would at once show that the title is available in a particular library in Region 9 and that it is available in Region 9, thus answering both of the required questions cited above. Since it is being assumed here that the present Library of Congress Union Catalog would be used as the basis for the possible national union catalog under discussion, a good many cases will occur in which a location for a particular region is already on the card in the Library of Congress Union Catalog. In such instances, no further location mark need be added to the card. The objective of the national union catalog would be satisfied with the location of one copy of each title in each region; if it is desired to know how many copies are available in any one region, reference can be made to the regional union catalog.

Requests for the location of specific titles will normally be handled through the regional union catalog. Libraries within each region would be expected

to send their location requests to their regional catalog, which would forward the request to the national union catalog if the title did not exist in the region. The national catalog would report the nearest location of the title to the inquiring library, or might even initiate the interlibrary loan routine if that happened to be the motivation of the request. In certain instances a large or specialized library in a particular region might be able to show that the majority of its requests were not available in the region, and thus gain the privilege of sending its requests directly to the national union catalog. Care must be taken to avoid abuse of the privilege, for it is the essence of the regional catalog system that most of the work be done in the region, and the national catalog will in any case be busy enough with requests for titles not available in the particular region.

The detailed study of library resources would normally be confined to the individual regions, but situations might well arise in which an analysis of national holdings of certain groups of library materials by regions would be of interest and importance. The present national emergency is a case in point, in which the location of books pertinent to defense interests could have been much facilitated had a national system of regional union catalogs been in existence and operation.

The best answer to any question about the desirability of including a regional system of union catalogs in a national union catalog is that it is already being done. Seventeen regional union catalogs are now in existence or in the process of compilation. Two of them are already being entered in the Library of Congress Union Catalog, and the inclusion of others awaits only the necessary funds and the development of a suitable method of facsimile reproduction. Not all regions are as yet covered by regional union catalogs, nor have all of the details of regional-national cooperation been worked out. The process has, however, begun, and has begun in accordance with the concept of regionalism outlined above as implying local initiative and responsibility. It is important that the growth of a national system of regional union catalogs, and a culmination in a national union catalog, should continue on the basis of local understanding of the needs to be served and the benefits to be gained, for such a program would literally hold all books in American libraries to be the common property of all other libraries and their patrons.

It does not necessarily follow, however, that the development of such a system of regional union catalogs should await the availability of purely local funds. To date, precedent points rather in the direction of financial assistance from the national government and from private foundations. Only four of the 17 regional union catalogs were compiled with purely local funds. Three were compiled with funds granted by private foundations. Ten regional union catalogs, including the largest and most important, were com-

piled largely with labor furnished by the WPA, and three of these received additional funds from private foundations, one of the latter being further assisted by local private sources. The pattern is largely one of dependence on national and private funds for the construction of the union catalog, with a trend toward the use of local funds for the maintenance of the catalog once it is completed. There is no reason to expect this pattern to change materially in the development of a more complete system of regional union catalogs, and it may well be necessary to look again to the national government for the \$10,000,000 needed to compile a national system of regional union catalogs and a national union catalog of all American libraries. If the regional system and national union catalog were limited to research libraries the amount needed would be \$5,000,000.

It is not necessary that both the system of regional union catalogs and the national union catalog be compiled at the same time, or in immediate succession. Even though the regional union catalogs and the national union catalog would all become parts of an integrated system of library cooperation, the success of either one is not completely dependent on the existence of the other. The regional union catalogs should, however, be compiled first, so that the work of the national union catalog can benefit from their elimination of duplicated cards. As each regional union catalog is completed, cooperation with the national union catalog can begin. Such cooperation is already in progress between the Library of Congress Union Catalog and the regional union catalogs in Philadelphia and Providence. Similar cooperation could easily go forward with the other regional union catalogs now in existence. The pattern and procedure have been outlined with reference to actual experience; probable cost has been estimated as closely as is possible with existing data; only local initiative and support, supplemented by a national or private subsidy, is needed to create a system of regional union catalogs and a national union catalog that will, together, be reliable indexes to the resources of region and nation alike, and at the same time invaluable tools for evaluating and augmenting those resources.

PART TWO

Regional Union Catalogs: A Study of Services Actual and Potential

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CHAPTER 6: *Background of the Problem*¹

THE CHIEF PURPOSE OF THIS STUDY IS TO DESCRIBE, ANALYZE, AND EVALUATE the extent to which existing regional union library card catalogs and bibliographical centers can and do facilitate interlibrary lending, cataloging, order work, and other bibliographical services, both regional and national.

DEFINITION OF TERMS

The term "regional union library card catalog" as used here denotes an author card catalog of the library resources within a given geographical area, which may vary in size from a large city and its suburbs to an entire state or even several states, with locations in the libraries of the region shown for each item included. The Philadelphia metropolitan area illustrates the first class; the Rocky Mountain region, including Colorado, New Mexico, Utah, and Wyoming, with Denver as the center, is an example of the latter type.

Arthur B. Berthold has attempted in the following excerpt to distinguish from regional union catalogs those containing only printed cards of a few large and scattered research libraries.

Although, broadly speaking, all of these [collections of printed cards] partake of the nature of union catalogs, the one factor which sets them apart . . . is the fact that their files depend entirely on cards which are already available in printed or otherwise duplicated form rather than on geographical or subject considerations. On the other hand, the true union catalog, such as that of Philadelphia, would not feel it necessary to acquire cards from Harvard, for instance, except as they might serve to replace some inadequate records in its files. Our [the Philadelphia] catalog is designed to cover an area or a region and is not much interested in the mere accumulation of cards from libraries outside its locality.²

By "bibliographical center" is meant a collection of trade, subject and "location" bibliographies, union lists of serials showing library holdings, and perhaps a union catalog. It is organized and staffed to serve a region in the location of reading and research materials for such purposes as filming, interlibrary loan, exchange, and other bibliographical activities.

¹ This study was made under the direction of the Graduate Library School, University of Chicago.

² A. B. Berthold, "The Union Catalog Idea," in W. M. Randall, ed., *The Acquisition and Cataloging of Books* (Chicago: University of Chicago Press, 1940), p. 243.

Other bibliographical services include the verification of authors' names, titles, dates of publication, and similar order and cataloging information; compilation of subject and author bibliographies citing regional locations; cooperation with other union catalogs, regional and national, in the location of scarce items; and additional miscellaneous services as discovered or conceived in the course of the study.

LIMITATIONS

The organization and administration of the union catalogs and centers considered here have been described only in so far as has seemed necessary for a clear understanding of services made possible by the various types of organization. These two topics of organization and administration have been more fully discussed by Berthold and Merritt.³

PREVIOUS STUDIES

No intensive study of union catalog functions has previously been made. Some data concerning the services of the Union Library Catalogue of the Philadelphia Metropolitan Area were gathered by those connected with its administration, and recently published.⁴ H. G. Brown studied the use that was made of the University of Pennsylvania Library, the National Union Catalog, and the Philadelphia catalog in filling interlibrary loan requests for the years 1935-39.⁵ More complete data from a number of catalogs and libraries are needed for purposes of comparison before we can attach objective value to the findings.

OBJECTIVES

The objectives of the study may be stated briefly:

1. An assumption is made that regional union catalogs can be evaluated in terms of services performed, and an attempt is made to list and compare the services of several existing catalogs. A short discussion of factors contributing to the rise of these tools has been included to give a better understanding of their functions.
2. An effort is made to classify union catalog patrons by occupation or profession, and in terms of their purposes in using the catalog as these data

³ A. B. Berthold, "Manual of Union Catalog Administration," and I. C. Merritt, "The Administrative, Fiscal and Quantitative Aspects of the Regional Union Catalog," in R. B. Downs, ed., *Union Catalogs* (Chicago: American Library Association, 1942).

⁴ Philadelphia Bibliographical Center and Union Library Catalogue, "Subject Analysis of Location Service of the Union Library Catalogue During the Six-Month Period January 1 to June 30, 1941" (Philadelphia: [The Center] July 1941) (7p. mimeographed). Also: Bibliographical Planning Committee of Philadelphia, *Philadelphia Libraries: Survey of Facilities, Needs and Opportunities* (Philadelphia, University of Pennsylvania Press, 1942).

⁵ H. G. Brown, "Union Catalogs and Interlibrary Loan," *College and Research Libraries*, I (September 1940), 336-39.

are thought to furnish some indication of the importance of the work being furthered and the classes of readers reached by these instruments.

3. The nature of materials being used are analyzed to show fields receiving greatest assistance from union catalogs, thus providing further indication of the nature of the aid being given by these catalogs, and offering some possible guidance in determining types and subjects for first inclusion in a catalog of limited scope.

4. The kinds of libraries most frequently holding materials requested are classified to show what types of libraries may justifiably be included in future union catalogs.

5. An attempt is made to discover additional services performed by a bibliographical center, i.e., services not possible for a union catalog except when supplemented by certain other bibliographical tools.

6. The comparative advantages to a region of using its own union catalog or center, as contrasted with complete dependence upon the services of the National Union Catalog at Washington, are studied.

7. An effort has been made to summarize and evaluate the actual and potential services of regional union catalogs, and to suggest means of eliminating some of the differences between the two.

SOURCES AND METHODS

Some information concerning services performed by union catalogs was obtained directly from their administrators by personal interview, but one of the chief sources utilized has been the records of service kept by the various regional union catalogs which have been in existence long enough to be worthy of study, e.g., the Bibliographical Center for Research at Denver, the Cleveland Regional Union Catalog at Western Reserve University, the Ohio Union Catalog at Columbus, the Union Library Catalogue of the Philadelphia Metropolitan Area, and the Nebraska Union Catalog at Lincoln. Several years ago the Bibliographical Center at Denver was asked to keep very complete records of services requested and performed, together with correspondence and notations showing the bibliographical tools used in answering the requests. All catalogs studied have been visited personally and the records copied or brought away intact for later examination.

The documentary analysis method was used to ascertain from these records the services requested by various types of libraries and individuals, the subjects involved, the tools required to answer the requests, and the libraries holding most items needed by patrons of the catalogs.

Another source of information has been the records of interlibrary-loan requests, filled and unfilled, made by cooperating libraries in the Rocky Mountain Region through all channels during the year 1940. The individual borrower, his occupation or profession, and his purpose are indicated

whenever known. These records were secured by correspondence with the librarians of the cooperating libraries who used report slips for individual items. The data were then analyzed according to class and purpose of each patron. Also studied were the sources from which, and the speed and certainty with which, requests through the Bibliographical Center were filled, as compared with those sent direct to the lending libraries.

The items for which locations were requested through the Denver Center over a period of six months were taken to the Library of Congress and checked with the union catalog there to discover the extent to which that catalog might have filled the requests, and particularly whether it included locations in the Rocky Mountain region or anywhere west of Chicago and the Mississippi River. The results of the check have been used as a basis for comparing the Center's own catalog with the National Catalog, in respect to potential services offered that region.

It is hoped that findings from this study will be of some assistance to those who contemplate the creation of new regional union catalogs, by serving as an indication of possible values of such an instrument and as a guide to the kinds of libraries and types and classes of materials which make the most valuable contributions to the union catalog.

CHAPTER 7: *Factors Contributing to the Rise of the Regional Union Catalogs*

A SHORT SURVEY OF THE FACTORS CONTRIBUTING TO THE RAPID RISE OF regional union catalogs should give a better understanding of the functions which these catalogs may be expected to perform. It is the purpose of this chapter to provide such a background as briefly and as clearly as possible.

It is only during the last decade that librarians have recognized in any very concrete form the fact that it has become impossible for one library to secure a complete collection of the books and periodicals of all countries and periods dealing with even one fairly narrow field of knowledge, much less with all subjects touched upon by the curriculum of a great university or of interest to the patrons of a large public library. Until after 1930, despite various articles suggesting certain types of library cooperation, it was apparently the policy of most university and large public libraries to practice the American philosophy of "rugged individualism" and "devil take the hindmost" in the building of research collections. In the prosperous 20's it was common practice for large university libraries, and many college libraries, to buy or otherwise secure everything possible, no matter how little their collection might bear upon the institution's curriculum, or how many copies were already in neighboring libraries.

Several factors have combined since 1930 to bring about a change in attitude and practice on the part of librarians in the accumulation and use of library materials, and to cause them to realize the advantages of viewing as a unit the region of which their institutions are mere parts.¹ As will be seen later, one of the instruments most helpful in the practice of this new philosophy, and made possible by it, is the regional union catalog.

The first of the seven factors to be mentioned here is the enormous mass of printed materials flowing from the presses of the world in ever-increasing quantities and in diverse forms during recent years. The output of periodicals, as well as of books, presents a problem to the library aspiring to a complete collection in any field. In 1930 the University of Chicago subscribed to 1,719 journals in the field of history alone.²

¹ See also Fannie Sheppard, "The New Jersey Union Catalog," *New Jersey Library Bulletin*, N.S. VI (November 1937), 12-15.

² L. R. Wilson and others, "Report of a Survey of the University of Georgia Library . . . 1938" (Chicago: American Library Association, 1939) (mimeographed), p.51.

The current journals digested in *Chemical Abstracts* number 2,800, in *Biological Abstracts* 679, and in *Science Abstracts* 287. It must be remembered that these abstracting journals are themselves selective. In order to secure as complete coverage of published material as possible, it has become necessary for libraries to combine their buying power through a regional division of fields of acquisition, and thus to avoid undesirable duplication. They have turned to the union catalog as the instrument which can make the mass of material accessible to anyone in the region.

The second factor in the trend toward consolidation of library facilities is the rapidity with which the techniques in such fields of activity as chemistry and aeronautics have been changing, and the necessity for scholars and research workers to be immediately informed of these technical advances through books and periodicals which must be located quickly and secured for use as speedily as possible. Union catalogs provide the needed key to whatever library resources are near enough to serve these purposes.

The third factor had its roots in the depression. It became clear that the book budgets of most libraries would not be increased from year to year sufficiently to keep pace with the rapidly growing body of literature mentioned as factor one and required of libraries by factor two. Since the depression, it has become increasingly apparent that the largest libraries cannot buy and house all books and periodicals being produced. Even Harvard University Library, which, according to Fremont Rider,³ has doubled its book collection an average of once every 16 years for over three centuries until it now possesses approximately 4,000,000 volumes and pamphlets,⁴ can neither hope to procure everything published nor everything which its own research workers will need.

How impossible it has become for a single library with a limited budget to purchase the materials being produced in all fields of knowledge is well illustrated by the fact that, in order to satisfy interlibrary loan requests, the Union Catalog of the Library of Congress, while containing entries for several million titles,⁵ finds it necessary to send out weekly search lists of books which it cannot locate and which are urgently required for important research. Although these titles are carefully selected upon the basis of their urgency, of several thousand circularized in the fiscal year 1939-40, only 61 per cent were located for the inquiring libraries.⁶

The needs of research have required the pooling of resources in many areas to enable institutions to offer graduate work, or to make industrial

³ Fremont Rider, "Alternatives for the Present Dictionary Card Catalog," in W. M. Randall (ed.), *The Acquisition and Cataloging of Books* (Chicago: University of Chicago Press, 1940), p.142.

⁴ *American Library Directory*, 1939 . . . (New York: R. R. Bowker Co., 1939), p.188.

⁵ G. A. Schwegmann, "The Union Catalog . . . Supplement [to the report of the Director]," *Annual Report of the Librarian of Congress for the Fiscal Year Ended June 30, 1940* (Washington: Government Printing Office, 1941), p.542.

⁶ *Ibid.*

research possible. This constitutes a fourth factor. In certain regions individual college and university libraries cannot buy, house, and service enough materials to provide adequately for the most meager kind of graduate courses being offered by the institutions they serve. A tabulation based upon data in the *Report* of the Committee on Graduate Instruction of the American Council on Education,⁷ which attempted to determine the departments in the various graduate institutions of the United States with adequate faculty and library facilities to grant the doctorate, came to the conclusion that 20 states contained no such departments.⁸ Not a single doctor's degree was granted in 17 of the 49 states (including the District of Columbia) during 1933-34.⁹ In 1935 only four university libraries in the entire South had collections totaling more than 200,000 volumes, and only the University of Texas contained as many as 400,000.¹⁰ Is it any wonder that these areas have felt the need to combine their library resources through such means as regional union catalogs?

A fifth factor has arisen from an entirely different situation. The enormous growth in the number and size of libraries in various metropolitan book centers has increased the need for a central key to their contents. In the minds of those concerned this key has most often taken the form of a regional union card catalog showing the location in libraries of books within the area. The Philadelphia metropolitan area containing over 150 different libraries, may be cited as an example of such a center now actually being served by a union catalog. Among other centers which may, in future, experience a similar need are New York City, Chicago, and Los Angeles.

A sixth factor, the ready availability of an abundance of cheap WPA labor in recent years, has also contributed to the development of union catalogs. This labor has made it possible to reproduce catalog cards in mass quantities without great expense to the sponsoring libraries. Notable examples of union catalogs produced largely with WPA labor are the Union Library Catalogue of the Philadelphia Metropolitan Area, the Union Catalog in the Bibliographical Center for Research in the Rocky Mountain Region at Denver, catalogs at Columbus and Cleveland, Ohio, Lincoln, Nebraska, and others now in process of compilation at Seattle and Atlanta. In some instances the cards have actually been typed by WPA labor. In others only the stamping of library code symbols on cards and the filing have been done

⁷ American Council on Education, Committee on Graduate Instruction, *Report* (Washington, April 1934) p. 4-35.

⁸ J. P. Stone, "Some Data Concerning a Plan for a National System of Regional Union Catalogs and/or Bibliographical Centers" (Unpublished manuscript in the office of the Graduate Library School of the University of Chicago, August 27, 1937), Table 1.

⁹ U.S. Office of Education, *Biennial Survey of Education in the United States: 1932-34* (Washington: Government Printing Office, 1937), chapter IV.

¹⁰ R. B. Downs and Harvie Branscomb, "A Venture in University Library Cooperation," *Library Journal*, LX (November 15, 1935), 877.

with this help.

A final factor has been the increased interest in microphotography and other photographic methods of reproducing library cards. These methods have made it possible to secure copies of many widely scattered card catalogs and to bring them to one central location for typing, filing, and editing. Technical developments have thus reduced the time spent away from a central headquarters, and also reduced the annoyance caused librarians and patrons by the prolonged absence of trays if cards are first copied by typewriter. The most widely publicized example of the use of microfilm to reproduce library card catalogs is at Philadelphia, where the cards from more than 150 libraries were filmed and brought to a central office to be typed and edited. Microphotography has also made it possible for libraries, both large and small, either to purchase on film or to borrow in this form copies of rare or out-of-print books, newspapers, and serials hitherto unavailable or too expensive for purchase. Before such materials can be filmed or borrowed they must be located, and the union catalog serves that purpose.¹¹ Thus, microphotography not only aids in the compilation of union catalogs, but accentuates the need for them.

This brief discussion of the principal factors helping to bring about the growth of regional union catalogs will, it is hoped, provide the background for a better understanding of functions which such catalogs may be expected to perform.

¹¹ R. B. Downs, "Mobilization of Library Resources," *School and Society*, XLIII (March 14, 1936), 370. See also "Philadelphia Union Catalogue Will Aid in Placing Microfilm Orders," *Journal of Documentary Reproduction*, II (1939), 208-09.

CHAPTER 8: *Volume of Service of Existing Regional Union Catalogs*

AS PREVIOUSLY STATED, TWO METHODS HAVE BEEN USED TO DISCOVER SERVICES being performed by existing union catalogs. Records of the requests coming to each catalog have ordinarily been studied and analyzed in some detail, and the supervisor or director interviewed personally and specifically, not only concerning services being rendered, but also with regard to plans for additional services in the future. The catalogs at Seattle and Atlanta are still in process of creation and, therefore, findings from these sources deal only with plans for the future.

In the collection of data for analysis, visits have been made to the union catalogs in Seattle, Washington; Denver, Colorado; Nashville, Tennessee; Atlanta, Georgia; the Library of Congress, Washington, D. C.; Philadelphia, Pennsylvania; New York City; Cleveland and Columbus, Ohio; Lincoln, Nebraska; and the California State Library, Sacramento. The more thorough studies have been made of centers possessing the most complete records, notably those at Denver, Ohio, and Washington, D. C. The Bibliographical Center at Denver had been requested to keep such records over a period of several years for purposes of this investigation. Records of some union catalogs are very incomplete; these give slight bibliographical information about titles requested, and keep inadequate records of the borrowers.

Book and periodical titles involved in requests received by the Bibliographical Center for Research at Denver during a period of 10 months, and facts concerning them have been copied from the Center records onto check sheets similar to the sample shown in Figure 6, which was devised for the purpose. Noted on these sheets, among other data, is the type of inquiry, i.e., whether it is a request for an interlibrary loan or a mere location citation, and if for bibliographical information the nature and purpose. It has often been necessary to search through a considerable amount of Center correspondence in order to complete the information on the check sheets.

The items requested of the Cleveland Regional Union Catalog are listed in its records on cards often lacking some bibliographical details but showing libraries holding the various items searched. Similar records are available at the Ohio Union Catalog in Columbus and at the Nebraska Union Catalog in Lincoln. The records at Philadelphia are less complete for indi-

UNION CATALOGS IN THE UNITED STATES

vidual requests. A larger portion of the inquiries are received there by telephone, noted hurriedly on small blank slips, and frequently lack many bibliographical details, as well as the name of the patron. These records or substantial samples of them, as described later, have been transferred to slip

(Author: surname first)			Book	Periodical	is in:
			1.Co		*20.CoGrS
			2.CoAT		21.CoGuW
			3.CoC		22.CoHi
			4.CoCC		23.CoLH
			5.CoCF		24.CoPC
			*6.CoD		25.CoSC
(Date Pub.)	Publisher	Place Pub.	Vols.&paging	Price	
Request from:					
(Individual and Library)			No.		
For:	Name and address		Date Requested		
Grad.	Commercial Lab.	Govt. Emp.		11.CoDI	
Undergrad.	Field Researcher	Adult stud.		12.CoDM	
Faculty	Business Man	Recreation		13.CoDPS	
Dept. & Subject	Kind of ind. or bus.	Other (Write In)		14.CoDR	
				15.CoDU	
				16.CoDUC	
				17.CoDul	
				18.CoFS	
				19.CoG	
Location citation			Bibliographical Inform.		
Inter-lib. loan.			Author Title Date		
Request forw'd...			Publisher Place Price	1.Bost.P. 10.U.Cal.	
For filming			For aid in purchase...	2.Cal.St. 11.U.Chi.	
Other use:(describe)			For aid in catalog'g..	3.Clevel'd 12.U.Cinn.	
			Appraisal	4.Harvard 13.U.Ill.	
			Reference(List on Back)	*5.J.Crer. 14.U.Mich.	
XXX TYPE OF REQUEST XXX					
XXX REQUEST ANSWERED BY XXX					
Union Catalog			English Cat.	*6.L.C. 15.U.Mo.	
CBI & U.S.Cat.			Lorenz Cat.	7.M.I.T. 16.U.Texas	
CoD Catalog			Union List of Serials	8.N.Y.P. 17.Yale U.	
Other:			Union List of	9.St.L.P.	

Fig.6.—Check sheet recording information concerning requests received at the Bibliographical Center for Research in Denver.

forms adapted to the purpose and with provision for additional information to be added as secured.

The material obtained from these sources constitutes the basic data used to determine the services of the union catalogs now in existence. The findings of a more general nature will be surveyed in this chapter.

GROWTH IN SERVICE

It may readily be seen from Table 49 that regional union catalogs are being used to greatly varying extents. A hurried glance at the table, however, would probably give an incorrect picture of the relative use of the several catalogs, for there are many factors which need to be taken into consideration in a comparison of service volume.

First of all, it must be remembered that some union catalogs have been established much longer than others, and it is to be expected that requests

TABLE 49
GROWTH IN VOLUME OF UNION CATALOG SERVICE REQUESTS

<i>Union Catalog or Center</i>	<i>Date Organized or Established</i>	<i>Earliest Statistics of Use Available</i>	<i>Items of Service Requested</i>				<i>Per Cent of Increase</i>
			1937	1938	1939	1940	
Bibliographical Center for Research (Denver)	1936	In constant use since Jan. 1938		1,895	5,172	8,941	172.92
Bibliographical Center for Pacific Northwest (Seattle)		In process					72.87
Cleveland Regional Union Catalog (Western Reserve University)	March 1936	Aug. 1937	141*	316	1,386	1,483	338.60
Nebraska Union Catalog (Lincoln)	Oct. 1938	Nov. 15, 1939			16*	437	2,414.0*
Ohio Union Catalog (State Library, Columbus)	Oct. 1937	Dec. 15, 1939			70*	3,704 ^b	120.47*
Union Library Catalogue of the Atlanta-Athens Area		In process					
Union Library Catalogue of the Philadelphia Metropolitan Area	1936	Service started Jan. 1937	4,329 ^c	10,751 ^c	5,634 ^c	24,275	56.50 ^c
Union Catalog of Libraries (Nashville)	Summer 1936	No records kept					

*The 1937 figures for Cleveland and the 1939 figures for Nebraska and Columbus represent only the portions of the year after service started as indicated in Column 3, but the percentage of increase for 1940 over 1939 in the case of the latter two catalogs has been computed upon a total for 1939 arrived at by multiplying the figure given here by the number of like periods in the year.

^bThe Columbus data for 1940 has been computed by adding to the 2,550 items for which locations were found during the year the percentage of this number not found during the first three months of 1941. Records of items not found were not kept during 1940.

^cThe 1937-39 figures for Philadelphia show only items for which locations were requested, omitting other requests, and those for 1939 are for the first half of the year only. No detailed records were kept for July through December. The percentage figures for this catalog include all items of service, not merely titles searched for locations.

to them would increase from year to year as they were more fully developed and their services more widely advertised to potential patrons. This rapid increase in service is clearly shown in a comparison of the statistics for a period of several years. The catalogs rank in total volume of circulation for the year 1940 almost in the order in which they began service. Exceptions are Cleveland and Nebraska, which are surpassed in volume by the Ohio Catalog at Columbus. This latter catalog has a larger number of cooperating libraries—45 as compared with 42 for Cleveland and 28 for Nebraska—and serves the many public libraries of Ohio. These public libraries borrow a large amount of material by interlibrary loan. Since Nebraska has no cities of considerable size except Omaha and Lincoln, and fewer and smaller libraries than Ohio, it is not reasonable to expect the volume of requests coming to the union catalog there, to equal those received at Columbus.¹ The need for a key to the combined resources of the region may be even greater in Nebraska because of this very lack of library facilities.

It is interesting to note that there has been an increase in the total number of services requested of each catalog during every year of its existence, and the percentage of increase has often been very high. We can, of course, expect this high rate of increase to taper off gradually as the catalogs become fully publicized and reach a larger proportion of their potential patrons with all possible services. There is no reason, however, to think these service requests have yet reached their maximum. The increase for the Cleveland Regional Catalog in 1940 over 1939 was only 6.99 per cent, but it was 338.60 per cent in 1939 over 1938. This difference would not be nearly so great if we were to exclude one large list of 550 titles checked by a single individual in 1939. The drop in rate of increase for Cleveland during 1940 is also no doubt partly due to the use of the Ohio Union Catalog at Columbus, which began operation December 15, 1939. The Columbus catalog now serves most of the public libraries of Ohio, while the Cleveland catalog serves the college and university libraries of the region and the public libraries in and around Cleveland.

The gain for Denver in 1939 over 1938 was 172.92 per cent as compared with 72.87 per cent in 1940 over 1939. Records for January 1941 show a total of 1,240 items requested, representing a 288.71 per cent increase over the 319 items reported upon in January 1940.

Detailed figures of location service are only available for the Philadelphia catalog, but the items searched in 1938 represent a 148.35 per cent increase over those searched in 1937. The gain in 1939 over 1938 has been computed from the figures for the first six months of each year, because records for

¹ In 1929 Nebraska libraries of 1000 volumes or more contained only 1,488,476 volumes as compared with 9,008,651 in similar Ohio libraries, according to L. R. Wilson, *The Geography of Reading* (Chicago: American Library Association and the University of Chicago Press, 1938), p. 53.

the latter half of 1939 were not kept in detail. For this period the increase was 56.50 per cent, whereas the first half of 1940 showed an 81.15 per cent increase over the same period for 1939. A report issued by the Board of Directors states that this large increase in 1940 "has been due in large measure to the activity of one library, that of the Philadelphia Museum of Art, which has used the catalogue to check extensive art bibliographies (between 6000 and 7000 items) and our figures may therefore be regarded as to some extent distorted."²

The Nebraska and Columbus records cover such a short period during 1939 that the percentages of increase shown for these two catalogs may have little significance. A semiannual computation for 1940 may be enlightening. Table 50 shows the per cent of increase in each succeeding six months over the first six months of service for the separate catalogs. This table gives a more complete conception of their relatively steady growth in patronage.

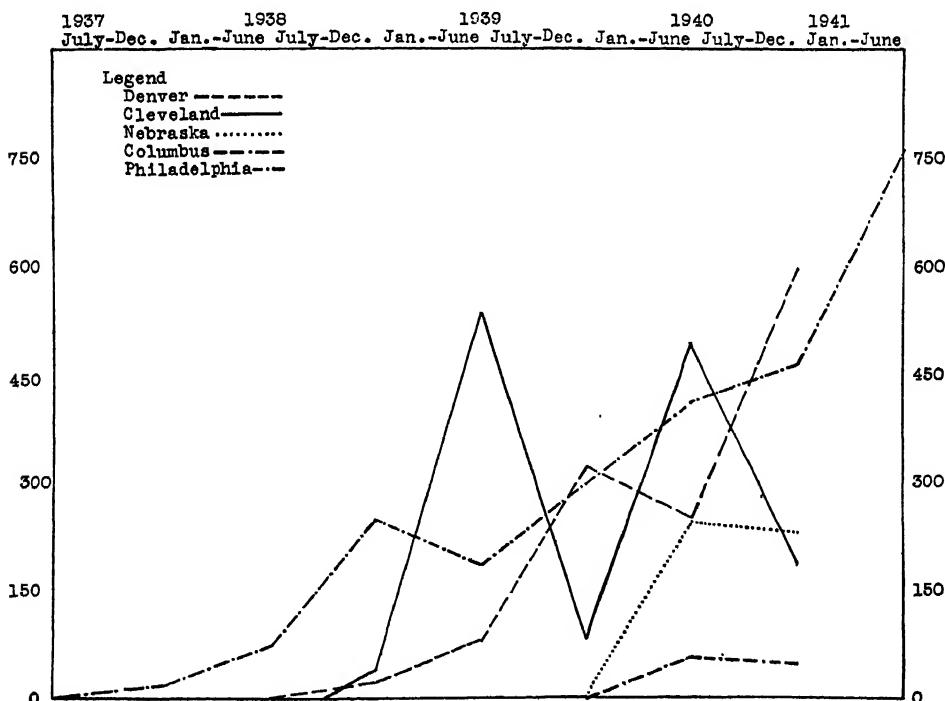


Fig. 7.—Per cent of increase each six months over the first six months of service for each union catalog.

When we consider the volume of service by six-month periods instead of by years, we cannot show a continuous increase from period to period. This is clearly illustrated by Figure 7. The Denver catalog dropped from a 321.39 per cent increase in the last half of 1939 to a 259.34 per cent in the first half

² Union Library Catalogue of the Philadelphia Metropolitan Area, Board of Directors, "Annual Report . . . January 9, 1941," ([Philadelphia, The Catalogue] 1941), p.4-5. (Mimeographed.)

UNION CATALOGS IN THE UNITED STATES

TABLE 50
PER CENT OF INCREASE EACH SIX MONTHS OVER THE FIRST SIX MONTHS
OF SERVICE FOR EACH UNION CATALOG

<i>Union Catalogs</i>	<i>1937</i>	<i>1938</i>	<i>1939</i>	<i>1940</i>	<i>1941</i>
	<i>Jan.-June</i>	<i>July-Dec.</i>	<i>Jan.-June</i>	<i>July-Dec.</i>	<i>Jan.-June</i>
Denver Items of service		851	1,044	1,586	3,586
Per cent increase			22.68	86.37	321.39
Cleveland* Items of service	169	72	244	1,075	311
Per cent increase		-57.36	+44.38	536.09	84.02
Nebraska* Items of service				64 ^a	225
Per cent increase					251.56
Columbus* Items of service				1224 ^a	1928 ^b
Per cent increase					57.60
Philadelphia* (Location service only)	1993	2,336	3,600	7,151	5,634
Items of service				No record	10,206
Per cent increase	17.21	80.63	251.81	182.19	412.09

*The figures for Cleveland, Nebraska, and Columbus for the first six months have been computed on the basis of the portion of the first year for which records have been available.

^aSee footnote b of Table 49 regarding Columbus data.

^bThe Philadelphia percentages deal with location service only, since complete records of other services prior to 1940 have not been secured.

of 1940. Cleveland's decrease was in the last half of 1939 and was almost regained in the first half of 1940, only to be largely lost again in the second half of the latter year. These Cleveland fluctuations are due, as has been discussed in part, to two inquiries each involving a large number of titles, one for the location of 550 items in January 1939, and one for 336 in April 1940. These caused abnormal increases during the half-year periods immediately preceding the decreases. The slight Nebraska reduction in the latter half of 1940 was not due, however, to the receipt of any request for an unusually large number of items during the first half of the year. Abnormal demands may also account for Columbus' decrease during the latter half of the same year, although the greatest number of items included in single requests to the Columbus catalog was 42, received in February 1940, and 40 in May. The next largest number was 18 in January.

A second factor to remember in comparing the volume of service rendered by each catalog as shown in Table 49 is that individual items do not represent the same amount of effort. The searching of a long list of 200

TABLE 51
TOTAL REQUESTS FOR REGIONAL UNION CATALOG
SERVICES DURING 1940

<i>Regional Union Catalogs</i>	<i>Total Items of Service Requested</i>	<i>Separate Requests (Not Items)</i>	<i>Mean Average</i>	<i>Median</i>	<i>Range</i>
Bibliog. Center for Research (Denver)	8,941	1,882	4.75		
Bibliog. Center for Pacific Northwest (Seattle)			No statistics of use yet available. Note discussion of services planned.		
Cleveland Regional Union Catalog (Western Reserve University)	1,483	526	2.82	1	1-336
Nebraska Union Catalog (Lincoln)	437	253	1.72	1	1-12
Ohio Union Catalog (State Lib., Columbus)	3,704 ^a	1,816	2.04 ^a	1	1-42
Union Library Catalogue of the Atlanta-Athens Area			No statistics of use yet available. Note discussion of services planned.		
Union Library Catalogue of the Philadelphia Metropolitan Area	24,275	5,528 ^b	4.39 ^b		
Union Catalog of Libraries (Nashville)			Note later discussion of services.		

^aThe total items requested of the Ohio Union Catalog is based upon a total of 2,530 items actually located during 1940, plus the items not found during that same year as calculated from percentages available for books not found during three months of 1941. No record of items not found was kept during 1940. The number of separate requests is then computed upon the basis of the mean number of items per request for the three months of 1941, or 2.04.

^bThe number of separate requests for the Philadelphia union catalog, and the mean average based upon it do not include requests for bibliographical data, which are represented in the total in Column 1.

titles in the English language on the average reading list is not to be compared with the handling of 200 individual inquiries for rare and elusive books or serials with many of the titles in foreign languages. Nor is location service for a single request by author the equivalent of a subject inquiry

for locations. Serial requests are also far less simple than those for books, because the former often concern specific dates or issues, and many serial titles or main entries for them are complicated and elusive.

Table 51 shows the volume of service in terms of separate requests (not items) for the year 1940. The mean-average number of items included in a single inquiry is also indicated. Because a few long bibliographies checked would have an undue effect upon the mean shown here, the median number of requests has more significance. This has been computed for the Cleveland, Nebraska, and Columbus requests, for which the median is one each as compared with a mean of 2.82, 1.72, and 2.04 respectively. The Cleveland catalog received only 12 inquiries for 10 or more items during 1940, and 363 of the requests concerned single titles. Only two of the Nebraska inquiries included 10 or more items each, and 174 of the 253 requests received during 1940 were for single titles. Thirty-one requests each totaling 10 or more items came to the Columbus catalog during the year, and 1,166 of the 2,081 inquiries were for one title only. The range in number of items per request during 1940 was one to 336 for Cleveland (one to 550 for 1939), one to 12 for Nebraska, and one to 42 for Columbus. These figures show the relative possibility of fluctuations for various periods, resulting from the inclusion of one or two inquiries for a large number of items.

A third factor important to consider when comparing the volume of service requests of the various catalogs is that these regional keys to library resources are situated differently with respect to book or research centers where large numbers of persons are engaged in the use of libraries for something more than recreational purposes. This has already been discussed in connection with the Ohio and Nebraska catalogs. The Philadelphia area, containing 4,805,252 volumes, ranks sixth among the 77 library centers in the United States with 500,000 volumes or more within a radius of 50 miles, as noted by L. R. Wilson.³ It holds the highest rank of the several centers included in this study, and it has also received the greatest number of service requests.

Cleveland, ranking seventh in the United States, or second among the five regions in our study for which data are available, ranks fourth among the five union catalogs in volume of inquiries. As already mentioned, dividing its requests with Columbus would partially account for this difference. Another factor is probably the influence of the large Cleveland Public Library, which doubtless draws a large number of direct interlibrary loan requests. There is no such single large library in the Philadelphia area. Columbus ranks twentieth among the 77 centers, third among the five catalogs in terms of library resources, and third in volume of service requests.

Denver is ranked thirty-second by Wilson, placing it fourth among the

³ L. R. Wilson, *op. cit.*, p. 119.

five union-catalog centers; but, actually, a much larger area than that considered by Wilson in computing its resources as a center is included in the region represented by the Denver catalog, which therefore ranks second in service volume. This high rank in number of requests may be partially accounted for also by the bibliographical tools supplementing the catalog. It is perhaps incorrect to class all requests received or filled by the Bibliographical Center for Research as union-catalog services, for many of the inquiries would no doubt never have been received, or successfully answered if received, by a union catalog functioning alone. The requests have been included within these tables partly because it is difficult to separate union-catalog and non-union-catalog operations for the entire period covered, and partly because it has seemed desirable to show all services in which the union catalogs have played a part. An attempt will be made in a later chapter to distinguish between union catalog services and those performed by other tools or agencies within the bibliographical center.

Nebraska is thirty-seventh in the Wilson table, fifth among our five catalogs, and fifth in volume of service. See Table 52 for a summary of the data in these last paragraphs.

TABLE 52

RANK OF UNION CATALOG CENTERS IN TERMS OF LIBRARY RESOURCES
COMPARED WITH VOLUME OF SERVICE REQUESTS

<i>Library Center or Union Catalog</i>	<i>Rank among 77 Library Centers</i>	<i>Rank as Library Center among Five Union Catalogs</i>	<i>Rank in Volume of Service Requests</i>
Philadelphia	6	1	1
Denver	32	4	2
Ohio (Columbus)	20	3	3
Cleveland	7	2	4
Nebraska	37	5	5

We might gain another and similar impression if we were to show the use made of each union catalog in proportion to the total use made of the cooperating libraries in its region during the same period, and compare these percentages for the different areas. It would seem that these proportions would also indicate, more accurately than the total number of items requested, the value of the catalogs to their individual regions, although perhaps not their value to national scholarship or to research as a whole.

We may summarize this discussion of the volume of service of regional union catalogs by stating that the extent of their use varies greatly as affected by their age; by the number of cooperating libraries; by the variety and type of requests received, as partially determined by the availability of other bibliographical tools; and by the location of the catalog with respect to library

centers. The volume of service has grown greatly and steadily from year to year with a few semiannual fluctuations, particularly in the case of the Cleveland catalog. The fluctuations are chiefly due to the inclusion of single requests for a large number of items of service in the periods immediately preceding the decreases. At all times the volume for each center has remained well above that for the first few months of the catalog's existence, the range of increase over this period for the last half of 1940 extending from 45.10 per cent for Columbus to 591.30 per cent for the Denver Bibliographical Center.

CHAPTER 9: *Range of Present Services*

A NUMBER OF POSSIBLE SERVICES OF REGIONAL UNION CATALOGS HAVE BEEN mentioned by various writers, and it is not difficult to outline an impressive list of theoretically potential functions, but the practical man in the field, as well as the scientific investigator, is inclined to ask how many of these different services existing catalogs actually perform. The immediate problem is to answer this question. It must be remembered at the same time that the fact that no existing catalog performs a particular service is not proof that the service is impracticable. Regional union catalogs, as they are considered here, are relatively new, and the task of compiling them has in itself been tremendous. Most of them have been created with simple location service in mind, and neither the staff nor the funds have thus far been available for extending their functions much beyond this one activity.

It seems quite natural for a union catalog or any other public tool or institution to be called upon for only those services which it advertises and which it is organized to provide. Union catalogs differ essentially in organization and in the range of variety of services which they find it possible to offer. At Lincoln, Nebraska, and Columbus, Ohio, the catalog stands more or less as a separate unit, with location of materials for interlibrary loan its chief function. At Denver it is only one instrument, an important one, to be sure, in a bibliographical center containing many trade, subject, and "location" bibliographies and union lists which help supplement the catalog and enable the staff to answer a wide range of requests.

The Cleveland Union Catalog is located in the library of Western Reserve University where other bibliographical tools are at least accessible, but it has had only one professional staff member to handle all requests and supervise the maintenance of the catalog with some clerical assistance. Reference questions or subject requests have ordinarily been presented to the staff of the reference or circulation departments of Western Reserve University Library, rather than to the supervisor of the union catalog. The close proximity of the Cleveland Public Library and its reference department has also affected the need for many reference services, and has tended to limit the range of the union catalog's activities.

Although the Union Library Catalogue of the Philadelphia Metropolitan Area has been housed since the fall of 1940 in a University of Pennsylvania

building, it is not in the main university library building, and as yet has only a few other supplementary bibliographical tools. The location of library materials and the furnishing of bibliographical information for cataloging and other purposes are the catalog's major work, but it has performed various other services. A bibliographical center is now being organized around the catalog.

The Union Catalog of Libraries of Nashville is located in the Joint University Libraries building recently completed on the Vanderbilt campus. As in the case of the Cleveland catalog at Western Reserve, there are few, if any, bibliographies considered as a unit with the union catalog, though the tools of the adjoining library are accessible.

At Seattle, Washington, the union catalog is a unit in what is to be a Bibliographical Center for the Pacific Northwest, and the catalog is being placed in separate quarters with provision for many additional author, subject, and "location" bibliographies. It should be possible, if adequate help is provided, for this Center to perform many bibliographical services not possible with union catalogs used alone. Seattle's geographical location, at some distance from other book centers, would seem to make these services particularly desirable.

The Union Library Catalogue of the Atlanta-Athens Area, now in process of creation, is located in the Emory University Library building. A bibliographical center is to be developed around this tool, although complete and final plans for its services have not been announced.

All of these factors have affected, and in some instances actually determined, the types of service which various union catalogs can and do perform. The knowledge of their organization and location should give a better understanding of their limitations and range of services. These services will next be taken up individually within related groups and discussed in more detail. They have been classified under five headings as follows:

- (1) Location services
- (2) Bibliographical services
- (3) Contributions to regional development
- (4) Contributions to national service
- (5) Miscellaneous services

LOCATION SERVICES

The location of a needed book by a given author in one or more libraries within the region is the most obvious and perhaps the most important service for which regional union catalogs have been established. This statement probably does not hold for depository catalogs of printed cards assembled by a few of the larger libraries chiefly for bibliographical purposes, but a

TABLE 53
ITEMS FOR WHICH LOCATIONS WERE REQUESTED DURING 1940

<i>Union Catalogs</i>	<i>Items for Which Locations Were Requested by</i>			<i>Total Items for Which Locations Requested</i>	<i>Per Cent of Total Service Represented by Location Services</i>
	<i>Libraries and Individuals</i>	<i>Other Regional Union Catalogs</i>	<i>The National Union Catalog</i>		
Bibliographical ^a Center, Denver	4,550	372	1,583	6,133	8.94 ^f
Cleveland Regional Union Catalog	1,109	71	1,481	1,483	68.59
Nebraska Union Catalog	366	460	437	437	99.87
Ohio Union Catalog, Columbus	3,244	473	1,583	3,704	100.00
Union Library Catalogue, Philadelphia	19,419		21,475	24,275	88.47
Total	28,688	1,376	3,166	33,230	38.84 ^o
					85.3 ^o

^aThe Denver figures include all items of service requested of the Bibliographical Center, although some of them were not entirely union catalog functions.

glance at Table 53 will show the importance of location service among those services rendered by the catalogs studied. The table indicates for each union catalog the number of items for which locations were requested during 1940 by libraries and individuals, by other regional union catalogs, and by the National Union Catalog, as well as the total items for which locations were requested of each center by all of these patrons. The number of items of service of all kinds requested of each catalog, and the per cent of the grand total representing location requests to the individual catalogs are also shown. There are, of course, a great many services rendered by regional union catalogs of an indirect nature rather than in the form of requested items which can be definitely numbered and counted. These will be discussed later.

Over 85 per cent of the services requested of the five catalogs for which statistics are available during the year 1940 involve the location of materials for interlibrary loan, photographic reproduction and other purposes. Two of the catalogs, Nebraska and Ohio, had no other recorded requests, and a third, Cleveland, came within a fraction of one per cent of falling into this class. The catalogs performing the largest percentage of other services are two of the older ones, Denver and Philadelphia. It should be noted that each of these forms part of a bibliographical center, though the collection at Philadelphia is not yet fully developed. In addition to possessing more bibliographical tools than the other catalogs, these two institutions are more adequately staffed and therefore able to offer services not possible, at present, for the other three catalogs. The Denver Center, possessing the largest collection of tools other than the union catalog and most highly developed as a bibliographical center, has rendered the largest percentage of services other than the mere citation of locations for needed materials—31.41 per cent.

Only two catalogs, those of Denver and Philadelphia, regularly check the weekly list of unlocated items sent out by the Library of Congress Union Catalog. These lists, including 1,583 items in 1940, considerably swell their totals. Western Reserve University Library also receives these lists but does not check them with the Cleveland Union Catalog located in the same building. The supervisor of the Cleveland catalog has expressed a willingness, however, to check the lists. All other regional union catalogs, including Cleveland, receive and check requests from the Denver Center, but do not send lists in return.

The rank of the five catalogs according to number of items of location service requested is the same as for total service requests, a fact to be expected since the majority of all inquiries are of this nature.

The success of the regional union catalogs in citing library locations for items searched during 1940 is shown in Table 54, indicating the number and per cent of items found and also the number and per cent of items for

TABLE 54
PER CENT OF ITEMS SEARCHED AND FOUND BY THE UNION CATALOGS
DURING 1940^a

<i>Union Catalogs</i>	<i>Items Searched^a</i>	<i>Items Found</i>	<i>Per Cent Found</i>	<i>Items Found in Region</i>	<i>Per Cent Found in Region</i>
Denver	4,550	4,349 ^b	95.59 ^b	2,572	56.53 ^b
Cleveland	1,109	726	65.28	726	65.28
Nebraska	366	231	63.11	231	63.11
Columbus	3,244 ^c	2,478 ^c	76.39	2,478	76.39
Philadelphia	19,419	12,363	63.66	12,363	63.66
Total	28,688	20,147	70.23	18,370	64.03

^a Items searched for the national or other regional union catalogs have not been included in this table.

^b The per cent of items found as listed here for Denver is the per cent actually found out of a sample of 1,339 items taken from those searched during alternate months of 1940. The number of items found for the total year is computed from this percentage, which includes items located by the union catalog and all other tools.

^c The number of items searched by the Columbus catalog is based upon the number actually found during 1940 plus the per cent of that number which were not found out of those searched during April, May, and June 1941.

which locations within the region were obtained. Only the Bibliographical Center at Denver cited locations outside its region, if we consider the University of Michigan, whose holdings are shown in the Cleveland catalog, as a part of the Cleveland area. Of 28,688 items searched in the five union catalogs, 20,147, or 70.23 per cent, were located, and 18,370, or 64.03 per cent (approximately two thirds) were located within the region served.

The Denver Center located the largest per cent of items searched, 95.59, but the smallest per cent within its region, 56.53. The union catalog there contains a depository of printed cards from John Crerar Library and the Library of Congress and also uses various union lists of serials and other bibliographies citing locations outside the region.

The Ohio catalog at Columbus was next most successful in finding locations for the items requested. It searched 3,244 items during 1940 and found 76.39 per cent of them, all within the region. It should be remembered that the estimated number of items found by this catalog is based upon the per cent found during April, May, and June 1941.

Location of rare books.—The findings of rare items or seldom-used sets which may then be borrowed instead of purchased is one of several purposes served by the location of a needed book by a given author. It would be difficult to separate this type of material from all others for which locations were asked of the union catalogs, but an examination of the titles involved indicates that a fairly large per cent fall into one or the other of these two classes. The service enables libraries to avoid at least a portion of the unnecessary duplication of purchase that otherwise might take place.

As some indication of the rarity of the items searched, those found only in one library by the Bibliographical Center at Denver during alternate months of 1940 were counted. The tabulation involved all materials searched during these six months with the exception of checklists received from the National Union Catalog and long bibliographies for which there were no full records of titles and locations. Out of 1,339 items searched during this period, 490, or 36.59 per cent, were located in only one library either inside or outside of the region covered. Out of 3,704 items searched by the Columbus catalog during the year 1940, 563, or 15.20 per cent, were owned by one library only. Of the 572 titles searched in the Nebraska catalog from November 15, 1939, to April 29, 1941, a total of 136, or 23.78 per cent were held by a single institution. The number of titles for which sole locations were found out of the 5,615 included in the above samples from the three catalogs is 1,189, or 21.19 per cent. This means that more than one out of every five titles searched could be located by the union catalogs in only one library. The fact that these titles are owned by so few libraries would seem to indicate that they are rare or not used often enough to warrant their purchase by many individual institutions.

Location for reproduction.—Another aspect of location service is the finding for filming, or other photographic reproduction, of copies of rare books when these are unavailable for interlibrary loan or when a loan is unsatisfactory. Many rare items are too fragile or too valuable to be sent out as interlibrary loans, and it is not always possible for the would-be users to go to the libraries holding them. A microfilm copy or photostat is a solution to this problem, but the book must be located before it can be filmed. Union catalogs perform this service. The purpose for which the location of a book is requested is seldom known by persons in charge of the catalogs, and their records show only two instances in which the desire for a photographic reproduction was mentioned during the year 1940. These were among requests coming to the Denver Center. No doubt many other such requests for material which could not be loaned were made directly to the libraries cited by the catalogs. The Supervisor of the Cleveland Regional Union Catalog stated during an interview that Western Reserve University faculty members and graduate students have made such use of the catalog, especially in the case of material located in the University of Michigan. The other union catalog administrators had no knowledge of the extent to which this purpose has been served.

Few of the libraries represented in the union catalogs possess equipment for filming, and that fact limits the extent to which reproduction service is possible. In the Denver region the University of Colorado Library at Boulder has established a filming laboratory with two good cameras. The institution also has two smaller cameras which it will lend. The Denver Public Library has bought a new Recordak reading machine and plans to put its Argus camera in the Bibliographical Center. The Denver catalog also cites locations in John Crerar Library and the Library of Congress where filming equipment is available. Certainly few of the small public libraries of Ohio or Nebraska own equipment for making photographic reproductions. Most of the library collections included in the Philadelphia catalog are relatively close at hand and can be visited by the patrons after they locate their materials through the catalog.

Expediting interlibrary loans.—Increasing the speed with which interlibrary loans are effected and thereby aiding studies or laboratory work dependent upon loans is another value claimed for location service. Union catalogs can cite locations within the region for materials which might otherwise be attained only at great distances and at great cost of time. The assumption is that in a region possessing no union catalog, a librarian desiring a book not likely to be very commonly held is prone to write either to a library known to specialize in the field involved or to the largest library in the region. Fearing that these libraries may not own the book, or upon learning that they do not, the librarian feels that he cannot waste valuable

time writing to other small libraries in the area, and therefore writes directly to the union catalog at the Library of Congress. Unless the book is located in the Library of Congress collection and is available for loan, it will be necessary for the librarian to wait for a reply citing another location and then write to the indicated library, perhaps in the East. The need for the material may have vanished and the patience of the patron be exhausted before the book actually arrives.

The large percentage of items searched during 1940 and located within the region by the five union catalogs from which data are available has already been mentioned. Of 28,688 items searched, 64.03 per cent were so located, as shown in Table 54. All locations cited by these five union catalogs are within the region served except some of those secured through the Bibliographical Center at Denver. Only 56.53 per cent of the items searched by Denver during six alternate months of 1940 were found within the region.

<u>Auth.</u>			
<u>Title</u> <u>(Call No.)</u>			
<u>(Date Pub)</u> <u>(Place pub., Publisher, Vols., pages)</u>			
<u>(Date of request)</u>	<u>(Description of borrower, his use for book, and college dept. or subject)</u>		
<u>Did you secure book?</u>	<u>Yes</u>	<u>No</u>	<u>Sub.</u>
<u>From what library?</u>			
<u>What union catalog or list used to locate the book?</u>			
<u>Your library code</u>			
<u>Date received</u>			

Fig.8.—Form filled out for interlibrary loans requested by libraries cooperating with Bibliographical Center, Denver.

Cooperating libraries in the Rocky Mountain region were asked to record on slips similar to that in Figure 8, each item requested by them as an interlibrary loan during 1940 and January 1941, showing what union catalog or list had been used to locate the book and from what library, if any, it had been secured. Replies were received from 21 of the 25 Colorado libraries, although two of them had kept no records and four others had requested no loans. Two out of four New Mexico libraries replied, as did two out of four

for Utah, and both Wyoming libraries, making a total of 27 replies out of a possible 35. Most of those failing to reply were small branch or special libraries which had probably requested very few loans. Only one library borrowing heavily through the Bibliographical Center, the University of Denver, failed to report, although some of the data for other libraries were incomplete. A total of 3,071 titles were reported upon, but of these 182 out of 188 requested by the Iliff School of Theology were secured direct for classroom purposes from the library of the University of Denver located on the same campus. Nine hundred and seventy of 972 estimated loans of the University of Denver Library School were secured for similar classroom use direct from the Denver Public Library just across the street. These are hardly typical interlibrary loans, and if the figures concerning them were used the results would be distorted. If they are omitted along with 11 items lacking sufficient information, there is left a total of 1,889 items. Of these, 1,033, or 54.69 per cent, were searched through the Bibliographical Center and 739, or 39.12 per cent, were requested direct of the lending library. In addition, 117, or 6.19 per cent, were sent to the Library of Congress or its union catalog without any previous attempt being made to locate them. A large number of the items requested directly were periodicals located through the *Union List of Serials*, or theses found in various lists of such material. The figures given above show more use of the Center than any other agency to facilitate interlibrary loans. If Colorado libraries alone are considered, the per cent of their total loans requested through the Bibliographical Center is still greater, i.e., 62.43. That for New Mexico libraries reporting is only 1.69, for Utah libraries 4.84, and for libraries reporting from Wyoming, 49.79.

Further evidence to indicate that the Bibliographical Center has enabled libraries to secure interlibrary loans nearer at hand and with greater speed is presented in Table 55. The table shows that 55.18 per cent of all items searched through the Center, as reported by the 27 libraries, was secured from within the region, as compared with only 32.07 per cent of those requested directly of the individual libraries aside from the Library of Congress.¹ It might still take as long or longer to secure the items searched through the Center were it not for the fact that the Center also serves as a forwarding agency, a function described later.

These 27 libraries were also asked to note the date upon which locations for each item were requested of the Center and the date that the material was received as a loan. Only eight of the libraries were able to furnish this information—six Colorado libraries and one each from New Mexico and Wyoming, all fortunately located at varying distances from Denver. A tabu-

¹ The 55.18 per cent of all items searched through the Denver Center during 1940 and January 1941 and located within the region as reported by these 27 libraries, compares closely with the 56.53 per cent of the sample taken from the Center records for the odd months of 1940 which were located within the region.

TABLE 55
 INTERLIBRARY LOANS REQUESTED OF ALL SOURCES BY LIBRARIES IN DENVER REGION
 DURING 1940 AND JANUARY 1941^a

	<i>Number of Items</i>	<i>Per Cent of Total</i>	<i>Number Located in Region</i>	<i>Per Cent Located in Region</i>	<i>Number Located Outside Region</i>	<i>Per Cent Located Outside Region</i>	<i>Number Not Located At All</i>	<i>Per Cent Not Located At All</i>
Items searched through the Bibliographical Center, Denver	1,033	54.69	570	55.18	400	38.72	63	6.10
Items searched direct except those from the Library of Congress	739	39.12	237	32.07	414	56.02	88	11.91
Items requested direct of Library of Congress or searched in its Union Catalog	117	6.19	0	.00	79	67.52	38	32.48
Total	1,889	100.00	807	42.72	893	47.27	189	10.01

^a Based upon data furnished by 27 libraries in the Rocky Mountain region.

TABLE 56
NUMBER OF DAYS REQUIRED TO LOCATE AND SECURE MATERIAL AS INTERLIBRARY
LOAN THROUGH THE DENVER CENTER, THE LIBRARY OF CONGRESS, AND DIRECT^a

Source	7	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16-20	21-25	26-30	31-35	36-40	41-45	46	Total	Median
Searched through Bibliographical Center, Denver	5	10	26	22	46	55	69	37	29	38	27	31	30	17	6	38	20	11	4	1	3	13	538	8
Requested direct of Library lending	7	5	10	12	30	50	53	59	35	41	23	12	12	9	7	24	10	6	9	2	1	0	417	8
Requested direct of library of Congress or its Union Catalog	0	0	3	0	0	8	16	12	6	11	5	0	1	0	5	4	0	0	0	0	1	72	9	
Total	12	15	36	37	76	105	130	112	76	85	61	48	42	27	13	67	34	17	13	3	4	14	1027	8

^aBased on data secured from slips filled out by the librarians of the following eight cooperating libraries in the Rocky Mountain region: Colorado College, Colorado Springs; Adams State Teachers College, Alamosa, Colorado; Colorado State College of Education, Greeley; Western State College of Colorado, Gunnison; Loretto Heights College, Loretto, Colorado; the University of Colorado, Boulder; the University of New Mexico, and the University of Wyoming. These statistics cover items borrowed during 1940 and January 1941 for which full data could be secured.

lation of the information (see Table 56) showed a median of eight days required to secure a loan searched through the Bibliographical Center, eight days to secure a loan requested directly, and nine days for loans through the Library of Congress or its union catalog. This would seem to indicate prompt service on the part of the Center. It should be remembered also that most of the items requested directly were located through the *Union List of Serials*, or through a list of theses, or had been borrowed before; their locations were thus established and material could be requested of a library known to possess it. If all materials searched by the Center, and for which locations were not previously known, had been requested directly of libraries, much would probably have been found only after two or three inquiries or not at all, thereby greatly increasing the median length of time required to secure materials directly. The Center might also have secured a better showing on length of time involved if it had been less persistent in finding elusive items. Limiting consideration to items for which complete information was provided and which could be located in the union catalog immediately, the length of time elapsing between the date of request and receipt of the material would be much shorter. The Center staff takes pride in its reputation for a high percentage of locations, however, and has often searched for many days and engaged in a vast amount of correspondence in order to locate an item. These instances have increased the median number of days required to secure loans through this agency, while increasing the percentage of items located. Not only did the Center enable libraries to secure more of their interlibrary loans from within the region, but it also filled a larger percentage of requests than were filled by the libraries receiving direct inquiries. It failed to locate only 6.10 per cent of items searched; while, on the other hand, 11.91 per cent of the materials requested directly were not located, and 32.48 per cent of the requests sent first to the Library of Congress were not located. It is possible, of course, that titles requested of the Library of Congress were more rare than those searched in the Bibliographical Center. Some data bearing upon this point will be presented in a later chapter.

The range of the median number of days required for any one library to secure loans for which locations were requested through the Bibliographical Center was 5.5 for Loretto Heights College at Loretto, Colorado, to 9.5 for Adams State Teachers College at Alamosa, Colorado. The range for items requested directly was from seven for Colorado College, Colorado Springs, Western State College, Gunnison, and the University of Wyoming at Laramie, to 10 for the University of Colorado. Those items located by the Library of Congress or its union catalog had a median range from nine for Colorado College and the University of New Mexico to 22 for the University of Wyoming, although the next largest median number of days was

11.5 for the University of Colorado.

Direct transmission of interlibrary-loan requests.—The forwarding of a request for an interlibrary loan directly to one of the libraries holding the item by those in charge of the union catalog has already been mentioned as a possible saving in time and effort. The Denver Center is the only catalog performing this service. All others merely report the locations to the inquiring library or individual. Some of the libraries in the Denver region, particularly the University of Denver, and, prior to May 1941, the Denver Public Library did not wish this service, for they could secure the locations by telephone and place their own requests for the material on the same day. Nevertheless, of the 1,339 items searched in the catalog for libraries and individuals as a part of the sample for the odd alternate months of 1940, the Center was asked to secure 563 items as interlibrary loans. Requests for 492, or 87.39 per cent, of these 563 items were forwarded by the Center directly to the libraries holding the material. At the same time a report on the action was sent to the requesting library.

This type of service helps to hasten the arrival of borrowed material, often by several days. A code system might be worked out by those in charge of a union catalog, printed on forms and distributed to borrowing libraries, to be checked and used in placing inquiries. The form would indicate the circumstances under which a request should be forwarded—i.e., when a given type of library, located within a given distance, and lending under given regulations, possessed the identical edition desired or another edition, etc.

Better distribution of interlibrary loans.—The securing of a more even distribution of interlibrary loans, lessening the burden upon the one or two larger libraries in the region and relieving the pressure on individual copies of rare or fragile items, is still another possible value claimed for regional union-catalog location service.

As evidence of this point, the Columbus union catalog cited locations in 40 different libraries during 1940 in answer to requests. The Denver Center cited locations in 41 libraries within the region and 44 additional libraries outside the region during the odd months of the same year. Materials were located in 40 libraries by the Cleveland catalog for its patrons during 1940, and the Nebraska catalog mentioned locations in 30 libraries. The fact that a large number of libraries were included in these citations is not, of course, complete evidence that the actual loans were well-distributed. In all regions except the Denver area the locations are merely reported to the inquiring library, and it selects the institution from which it wishes to borrow. These varied citations would at least make possible a better distribution of loans than would otherwise be practicable or even possible. Of the 2,530 items found by the Columbus catalog during 1940, a total of 802, or 31.70 per cent, were located in five or more libraries as shown in Table 57. The Cleve-

UNION CATALOGS IN THE UNITED STATES

land catalog cited locations for 895 items during 1940, including those requested by other regional union catalogs. Of this number, 493, or 55.08 per cent, were located in five or more libraries. During the period from November 15, 1939 to April 29, 1941, the Nebraska catalog located 46 out of the 368 items found, or 12.5 per cent, in five or more libraries. The Denver Center located 214, or 16.72 per cent of the 1,280 titles found by it during the six odd months of 1940, in five or more libraries. The data for the Philadelphia catalog are incomplete on this point, but the figures given for the other four catalogs provide sufficient evidence that these instruments have made a wider distribution of loans possible.

TABLE 57

PER CENT OF ITEMS FOUND BY EACH UNION CATALOG WHICH
WERE LOCATED IN FIVE OR MORE LIBRARIES

<i>Union Catalog</i>	<i>Period Covered</i>	<i>Total Items Found</i>	<i>Number Located in Five or More Libraries</i>	<i>Per Cent Located in Five or More Libraries</i>
Cleveland	1940	895	493	55.08
Columbus	1940	2,530	802	31.70
Denver	Odd six months of 1940	1,280	214	16.72
Nebraska	Nov. 15, 1939— Apr. 29, 1941	368	46	12.5
Total		5,073	1,555	30.65

It is one thing, of course, to say that a more even distribution of loans has been made possible, and quite another to say that it has actually resulted. In an attempt to determine the actual effect of the Denver Center and its union catalog upon this distribution, there were counted the sources from which interlibrary loans were secured by the 27 cooperating libraries reporting for 1940 and January 1941. The results are shown in Tables 58 and 59.

Table 58 shows the number of institutions supplying a given number of items to these cooperating libraries as a result of direct requests, compared with those resulting from citations by the Center. During the period checked, 98 libraries received direct requests for 755 titles, and 105 supplied loans totaling 949 items as a result of citations through the Center. The largest per cent of libraries in each group furnished less than 10 titles each: 82.65 per cent of those receiving requests directly, and 84.76 per cent of those cited. When all institutions supplying less than 20 items are considered, 92.85 per cent fall into the first group and 93.33 per cent into the second, indicating a slightly wider distribution of loans as a result of locations given by the Center. It is also probable that many of the loans falling into the latter group would have gone to libraries in the first group already furnishing a large number. This assumption is partially borne out by the fact that loans

were made as a result of Center citations by 10 libraries within the Rocky Mountain region receiving no direct requests. It should be remembered that items received directly were usually known to be held by libraries from which they were requested, whereas locations were not known for titles searched through the Union Catalog at Denver. The chief sources used to discover locations for the first group were the *Union List of Serials*, which indicates almost no holdings for the Denver region, and lists of theses noting

TABLE 58

DISTRIBUTION OF INTERLIBRARY LOANS REQUESTED DIRECT COMPARED WITH
DISTRIBUTION OF THOSE SEARCHED THROUGH THE BIBLIOGRAPHICAL
CENTER, DENVER, BY TWENTY-SEVEN SAMPLE LIBRARIES^a

<i>Number of Inter-library Loans Secured per Library</i>	<i>Number of Libraries Receiving Given Number of Requests Direct</i>	<i>Per Cent of Total Libraries Receiving Requests Direct</i>	<i>Number of Libraries Receiving Requests through Bibliographical Center</i>	<i>Per Cent of Total Libraries Receiving Requests through Bibliographical Center</i>
1-9	81	82.65	99	84.76
10-19	10	10.20	9	8.57
20-29	2	2.04	2	1.90
30-39	0	.00	0	.00
40-49	2	2.04	1	.95
50-59	1	1.02	0	.00
60-69	0	.00	0	.00
70-79	1	1.02	0	.00
80-89	0	.00	2	1.90
90-99	0	.00	0	.00
100-109	0	.00	0	.00
110-119	0	.00	0	.00
120-129	1	1.02	0	.00
130-139	0	.00	1	.95
140-149	0	.00	0	.00
150-159	0	.00	0	.00
160-169	0	.00	0	.00
170-179	0	.00	0	.00
180-189	0	.00	0	.00
190-199	0	.00	0	.00
200-209	0	.00	0	.00
210-219	0	.00	1	.95
Total	98	100.00	105	100.00

^aBased upon data secured from the librarians of 27 libraries in the four states represented by the Rocky Mountain region who were asked to record on slips all interlibrary loans requested from whatever source during 1940 and January 1941, with the name of the library from which each was secured, and the location tool used, if any. The median number of items requested direct is 3.06, and of those items located by the Denver Center it is 2.94.

the fostering institutions. It is therefore natural that these loans would be scattered over a large number of libraries. It is also logical to assume that if no regional union catalog or center had been available, a very large proportion of the 949 titles in the second group, for which no locations were known, would have been requested from two or three large libraries thought likely to possess them. It is not reasonable to think that these requests

TABLE 59
LIBRARIES RECEIVING LARGEST NUMBER OF INTERLIBRARY-LOAN REQUESTS
OF SAMPLE LIBRARIES IN ROCKY MOUNTAIN REGION

<i>Libraries Receiving Largest Number of Requests</i>	<i>Number of Items Requested Direct of Library</i>	<i>Per Cent of Items Requested Direct</i>	<i>Rank for Items Requested Direct</i>	<i>Number of Items Cited in Library by Bibliographical Center</i>	<i>Per Cent of Items Cited by Bibliographical Center</i>	<i>Rank for Items Cited by Bibliographical Center</i>
Denver Public	128	16.95	1	219	23.08	1
Library of Congress	75	9.93	2	134	14.12	2
University of Denver	17	2.25	9	82	8.75	3
University of Colorado	46	6.09	4	81	8.54	4
University of Chicago	50	6.62	3	13	1.37	13.5
University of Texas	45	5.96	5	10	1.05	16
Colorado College	8	1.06		42	4.43	5
University of California	29	3.84	6	3	.32	
University of Michigan	6	.79		25	2.63	6
Colorado State College of Education	11	1.46	14.5	21	2.21	7
University of Illinois	21	2.73	7	14	1.48	11.5
University of Wisconsin	18	2.38	8	2	.21	
Columbia University	14	1.85	10.5	6	.63	
Yale University	14	1.85	10.5	6	.63	
John Crerar	12	1.59	12	15	1.58	10
University of Colorado, School of Medicine	11	1.46	14.5	6	.63	
George Peabody College	11	1.46	14.5	0	.00	
University of Washington	11	1.46	14.5	3	.32	
Ohio State University	10	1.32	17	3	.32	
Colorado State College of Agriculture	6	.79		18	1.90	8
Harvard University	9	1.19		17	1.79	9
University of Wyoming	8	1.06		14	1.48	11.5
Medical Society of Denver	9	1.19		13	1.37	13.5
Bibliographical Center, Denver	0	.00		11	1.16	15
All other libraries	186	24.64		191	20.13	
Total	755	100.00		949	100.00	
Median number of items supplied	3.06			2.94		

would have been sent to 105 different libraries if no regional catalog had been used.

Table 59 presents another pattern of distribution, showing the loans by number of items secured from each institution supplying more than 10 to the libraries reporting. The table also shows the per cent each institution's loans represent of the total secured by this method, and the library's rank in the group based upon the percentage. Twenty-four different libraries supplied 10 or more titles in one or the other of the two groups. Seventeen of the 24 furnished 10 or more items upon direct request, and 16 as a result of citations by the Center. Only nine libraries fell into both groups, which would seem further to substantiate our assumption that the Denver catalog has been responsible for a more even distribution of interlibrary loans.

Seven libraries in each group answered 20 or more requests. Only three libraries appeared in both groups of seven. The Denver Public Library received the largest number of requests in each case—128 and 219 respectively. The Library of Congress ranked second in number of items requested in both groups (75 and 134). In the group of libraries from which loans were requested as a result of the Center's citations, the University of Denver ranked third, with 17 items; in the group from which material was requested directly, it ranked ninth, with 82. The remaining four libraries in each group of seven did not duplicate any of those in the other body. The evidence clearly indicates that a union catalog or bibliographical center does tend to secure a more even distribution of interlibrary loans than would otherwise result.

BIBLIOGRAPHICAL SERVICES

Those in charge of the union catalogs have failed to distinguish clearly in their records between all bibliographical services and straight location services. The Denver Center is the only example studied where a real attempt at a distinction has been made. By actual count, its records note 2,210 items for which bibliographical information was requested during 1940. This information was desired as an aid in acquisition in 230 cases. The Cleveland catalog records mention two items for which bibliographical information was requested during the same year by individuals desiring to purchase the titles. The Director of the Philadelphia catalog estimated that bibliographical information had been requested during 1940 for about 2000 items, but he would not attempt an estimate of the number of instances in which the information was desired for use in acquisition. He says,

. . . we have distinguished between two different kinds of bibliographical service: the one is connected with location service and counted only as such; a second kind consists of correcting cards, checking Library of Congress entries, and actual assistance in bibliographical work. We have estimated this latter type

as amounting to about 2,000 requests.²

The Supervisor of the Ohio catalog at Columbus stated in a personal interview that this instrument had as yet been used for bibliographical purposes only by the State Library located in the same building. Those in charge hope that individuals will come in and use the catalog for these and other purposes when it becomes better publicized locally.

Although the Nebraska catalog's records do not distinguish bibliographical from location service, a staff member in charge stated that the catalog has been used frequently for the former, particularly by the State Historical Library and the State Library Commission in the same building.

An analysis of requests for bibliographical information coming to the Bibliographical Center at Denver and contained in the sample six months of 1940, previously mentioned, shows 121 items for which order information was desired. In 51 cases the name of the publisher was wanted. In 44, general bibliographical information was requested. In 32 instances the date of publication, in 30 the price, in 28 the place of publication, and in four the title was the particular item of information wished. Two or more of these bibliographical items were needed for a given title in several instances. Fifty-four of the 121 requests came from two Denver libraries, 36 from the Denver Public Library, and 18 from the University of Denver. In addition to specific requests for bibliographical information, there were many requests for location service which could not be filled until the bibliographical items had been corrected or completed. This point will be discussed in a later chapter.

A cataloging aid.—The bibliographical information for 1,902 of the total of 2,210 items requested of the Denver Center during 1940 was wanted for cataloging purposes. The catalog, which contains a set of Library of Congress printed cards, was used by catalogers for author entries, series notes, and other bibliographical details, as well as for classification numbers, subject headings, and numbers to be used in ordering printed cards. The finding of these order numbers for Library of Congress cards represented the largest volume of service in terms of titles searched in the catalog, but not in terms of individual requests.

The Director of the Philadelphia catalog stated that the correct entry or other information for aid in cataloging was requested for about 1,700 items during 1940. The catalog has also been used extensively over a period of several years by the Library Company of Philadelphia in recataloging its collection of about 400,000 cards.³ This has chiefly meant the copying of

² Rudolph Hirsch, from typewritten letter of September 11, 1941, to the author.

³ A. B. Berthold, "The Union Catalog Idea," in W. M. Randall, ed., *The Acquisition and Cataloging of Books* (Chicago: University of Chicago Press, 1940), p.248. See also R. B. Downs "Report of a Survey of the Library Company of Philadelphia," June 26, 1940. (Typewritten manuscript.)

the union catalog cards for books owned by the library. The Philadelphia catalog has also been used in the cataloging of the library of the Academy of Fine Arts. In addition to this service a list of Russian Corporate entries has been compiled by the bibliographer and published as a cataloging aid to other libraries.⁴ A list of Pennsylvania State headings now being compiled by Pennsylvania State College with the use of the Union Library Catalogue, and the catalog of the State Library at Harrisburg, should be another helpful aid to catalogers.

Although no figures covering the use of other union catalogs to improve the cataloging in their respective regions exist, some information on this point has been secured from individual union catalog supervisors. The Cleveland and Columbus catalogs have been used "very little" for this purpose, although the latter has supplied missing title pages in a few instances. The Nebraska catalog has been used by the State Library Commission in its own cataloging but not by others.

The Nashville catalog has also been used by the catalogers in Vanderbilt University Library, to verify or complete author entries or other bibliographical details, although the set of Library of Congress printed cards owned by the library has not been filed in the union catalog and often supplies needed cataloging information. All supervisors admit the existence of much greater possibilities in the use of these tools to help improve the cataloging in their respective regions.

Compilation or checking of author and subject bibliographies.—The union catalog makes it extremely easy to compile a bibliography of any author's works which are available in the region. In fact, such a bibliography already exists in the catalog itself and may be copied, with locations noted, and mimeographed or printed for distribution if desirable. Union catalogs can be particularly useful in compiling lists of the works of regional authors. The compilation of a subject bibliography by like means has not been quite so simple. In most cases it has required the use of other tools to compile a subject bibliography which could then be converted into a regional list by checking with the catalog for locations. In some instances, printed subject bibliographies already in existence have been checked in this way by or for individual libraries. The Bibliographical Center at Denver compiled 78 bibliographies during the year 1940; and mimeographed checklists of regional holdings in several fields have been issued during its lifetime. Some examples are: *The Spanish Civil War and its Political, Social, Economic, and Ideological Background* and *Child Psychology, a Bibliography of Books in English*, both compiled by Floyd Hardin and issued in 1938,

⁴ A. B. Berthold, "Russian Corporate Headings; A List of Over One Thousand Russian Headings for Official and Semi-official Bodies, Based Chiefly on the Holdings of the Union Library Catalogue, with an Attempt at Their Identification for Cataloguing Purposes" (Philadelphia: Union Library Catalogue of Philadelphia, 1939). (Mimeographed.)

as *Regional Checklists*, Number 2 and 4 respectively. These lists are annotated in part.

The subject bibliographies dealt with such varied topics as accounting, Negro vocations, conquest of the Philippine Islands, Mexican folklore, the use of glass in the construction of buildings, propaganda, and Canada and its relations with the United States. An extensive reading list composed of a large number of sections was developed on the last topic for use in a seminar held at the University of Denver. The seminar became city-wide and the material was used over the radio, credit being given to the Bibliographical Center for preparation of the bibliography showing where reading materials could be secured.

In addition to requests for compilation of bibliographies, 36 of the 1,339 items for which locations were asked of the Denver catalog during the sample six months of 1940 already mentioned, were in the form of subject requests.

Obviously, this service is one which cannot be performed with the use of an author union catalog alone. None of the catalogs studied has yet been fully organized for the purpose of filling subject requests except the one at Denver, nor do they advertise that they will compile bibliographies upon demand. There is nothing, however, to keep them from checking subject bibliographies for regional locations. The Philadelphia center has acquired a few important bibliographical tools, such as Besterman's *World Bibliography of Bibliographies*, Bohatta's *Internationale Bibliographie der Bibliographien*, *The Bibliographic Index*, the subject bibliographies and lists issued from time to time by the Division of Bibliography of the Library of Congress, and a considerable number of similar works, but, as yet, these are used chiefly by patrons to locate other bibliographies, or by the union-catalog staff as a guide in referring patrons to cooperating libraries possessing bibliographies on the subjects of inquiry. One of the most important of this Center's tools is a classified subject bibliography file on cards in process of compilation. The file is based upon 13,575 Library of Congress catalog cards in the subject classification Z (Bibliography), augmented by 8,800 other cards in the classifications A to W properly belonging in such a file because of their bibliographical value. Current reference works are to be added as published. Another WPA project now under way is the compilation of a partial classified subject index to the Catalogue, using approximately 1,000,000 duplicate cards removed from it in the process of combining identical entries.⁵ When completed, these projects should provide the tools to deal fairly effectively with subject requests. Nevertheless, the Director of the Union Library Catalogue writes as follows:

⁵ Union Library Catalogue of the Philadelphia Metropolitan Area, Board of Directors, "Annual Report," January 9, 1941, p.5. (Mimeographed.)

The compilation of bibliographies is definitely not a function of the Union Library Catalogue. As this function is defined at present, we either direct inquirers to places where material can be found, or we advise them on methods and procedure in the compilation of bibliographies. Actual compilation of lists is envisaged for later, but only against remuneration.⁶

As an aid in directing inquirers "to places where material can be found," the Center has a file of reports on 191 individual libraries, containing a summary of information secured through visits or questionnaires. In addition to other information, each report lists the fields especially well covered in each library. A subject card has also been made for each field or special collection listed. These cards indicate in more detail the specific strength in each instance. More than 1,200 cards describing special collections on about 600 different subjects had been made prior to June 1941.⁷

Although the Union Library Catalogue staff does not consider the compilation of bibliographies to be its function at present, the Director reports that a list of works of a given author, held by libraries in the area, has been compiled by individual patrons in many instances. Several important subject bibliographies have been checked by the staff of the Catalogue for locations, for more complete bibliographical information, and for any additions to each author's contributions as shown by this regional index. Outstanding examples are Henry Russell Hitchcock's *American Architectural Books; Portfolios and Pamphlets Published in America Before 1895*; and Louis C. Karpinski's *Bibliography of Mathematical Works Printed in America Through 1850*. Lunt checked the Catalogue for material in writing his *History of England*. The Bibliographical Planning Committee is also compiling a *Union List of Periodicals in the Field of Education* showing holdings in four important libraries in the area, though no particular use is made of the Union Library Catalogue in the process.

The checking of subject bibliographies for regional holdings was suggested for the Cleveland catalog, but little has yet been done, according to its supervisor. The Columbus catalog was used to check a few subject bibliographies, but none has been compiled by the staff of either of these two catalogs. The Nebraska staff filled "a few individual subject requests," but these are not encouraged, and no special facilities to take care of them are provided. Only the Columbus catalog contains any subject entries.

CONTRIBUTIONS TO REGIONAL DEVELOPMENT

Division of the fields of acquisition.—There are several services not usually requested of the union catalogs and which may be provided either indi-

⁶ Hirsch, *op. cit.*, p.2.

⁷ The Philadelphia Bibliographical Center and Union Library Catalogue, "The News Letter, No.2" (June 12, 1941), p.2. (Mimeo graphed.)

rectly as a result of the union catalog's activities, or as a voluntary service of the centers' staffs. Some of these services may be classed merely as contributions to the development of libraries of the region. One such service is the attempt to facilitate and encourage regional division of fields of acquisition by showing and publicizing existing holdings and specializations. In order to secure a more complete coverage of all fields of knowledge, libraries within a given area have in many cases entered into an agreement whereby one library accepts responsibility for strong collections in certain fields, and buys sparingly in other subjects allocated to cooperating libraries. This allocation should be based upon several factors, one of which is the strength of existing holdings of the various libraries in different fields. Checking of important subject bibliographies with the union catalog will reveal relative strengths in these divisions and in some instances, perhaps, encourage librarians to enter into agreements which will prove mutually beneficial.

Understandings such as that described above do exist between a few libraries in at least the Denver and the Cleveland areas. The agreements were reached, however, before creation of their union catalogs, and are very general and relatively incomplete. Within the city of Denver, acquisition fields have been divided as follows: the Art Museum is responsible for art, the University of Denver Library for business, social, and economic material, the Public Library for the social sciences and technology. In the region as a whole each institution purchases major books in the field for which it has sole responsibility. In overlapping fields each is responsible for particular items, such as certain expensive sets or those books which are little-used but necessary. No set of books or periodicals once started is to be dropped without first consulting the other libraries. The Director of the Bibliographical Center has plans for the preparation of a basic list of research materials to be circulated to librarians in the region; they will be asked to select titles for purchase and then come together in committee meetings to eliminate duplication.

The Columbus, Cleveland and Nebraska catalogs have yet been instrumental in securing such divisions. Libraries in Nashville did enter into such an agreement prior to the establishment of the catalog, which now serves merely as an aid in avoiding duplication of individual titles. In the new program at Nashville the George Peabody College for Teachers assumes major responsibility for education and fine arts, Vanderbilt University for the social sciences, the humanities, and science, Scarritt College for religious education, the Public Library for a general collection of less scholarly materials, and the State Library for American state and local documents.⁸

⁸ "Vanderbilt-Peabody Program as Developed by the Faculties and Approved by the Administrators" (Nashville: Vanderbilt University and George Peabody College for Teachers, 1936). (Mimeographed.)

Certainly much more can and will be done by union catalogs to encourage and facilitate regional division of fields of acquisition when these catalogs have become better established and have developed their potential services more fully.

Avoidance of duplication of expensive and little-used items.—This service is closely related to that just discussed, and the union catalog can be used to perform it even more easily. The catalog's staff need merely encourage librarians to check with the union catalog file for regional holdings of expensive titles before purchasing them. Department heads and other faculty members of Western Reserve University have used the Cleveland catalog to check lists under consideration, and to eliminate some titles for purchase when held by certain accessible libraries in the region. The Order Librarian of Western Reserve checks all items costing 10 dollars or more against the union catalog before buying them. No provision for reporting intended purchases has yet been made, but it is hoped that such an arrangement can be secured in the future.

The Supervisor of the Union Catalogue of the Atlanta-Athens Area states that an attempt will be made there to have expensive items checked with the union catalog before they are purchased. One copy of the catalog is to be placed in Emory University Library and another in the library of the University of Georgia, making such use of it a very simple matter for these two institutions. The Union Catalog of Libraries in the Nashville Area is also used by faculty members and librarians of the city in the same way. Such service is not rendered by the Nebraska catalog, however. At Philadelphia, the American Philosophical Association, the Philadelphia Museum of Art, Swarthmore College, and the University of Pennsylvania have made some attempts to avoid undesirable duplication through use of the union catalog, and at least one individual made such use of the Columbus catalog during 1940. The Denver catalog records show only two specific items for which this service was rendered knowingly during 1940, but the records for 1939 note that 783 items were checked for the purpose during that year.

Aid in cooperative purchase.—If the administrators of each union catalog or bibliographical center were given responsibility for handling book buying for the region, or for the principal libraries within the area, it might be possible to secure valuable discounts and other benefits of cooperative purchase. The plan might also be linked with the reporting of current purchases by the individual libraries of the region, and serve as a means of keeping the union catalog up to date. The union catalog is unquestionably useful in order work and for helping avoid undesirable duplication.

This service has not yet been fully developed at any of the centers or catalogs outlined above, but those in charge of the Bibliographical Center at Denver have succeeded in securing a cooperative purchasing agreement

between several libraries in the region and the Follett Book Company, whereby unusually high discounts are given to these libraries for a guarantee of a stated amount of business during the year. The guarantee varies in proportion to the total volume of business of individual libraries. If orders totalling \$50,000 are placed with the company by the libraries during a given year, an additional discount is allowed. Although the purchasing of these books is not a function of the Union Catalog or Bibliographical Center at Denver, since orders are sent direct by each library, those in charge of the Center are responsible for organizing the plan. Additional values to be derived from a more centralized cooperative purchasing plan are still potentialities.

Aid in the completion of broken sets and partial files.—A few scattered numbers of a serial, or a broken set, are almost valueless in a library. A union catalog including serial holdings will show scattered short "runs" which it may be possible for the library possessing the longest run or having the greatest need for the material to secure in exchange for some of its own partial files. If this is done, at least one library in the region may then have a fairly complete set of a particular title, making it no longer necessary for a patron to go to several institutions to locate various issues of a given periodical.

Such exchanges imply full listing in a union catalog by volumes and dates of serials owned by libraries in the region. The Cleveland, Columbus, and Nebraska catalogs do not show the volume numbers held by the various libraries but merely indicate that some numbers of a given serial are held. In a few cases the Nebraska catalog shows the volume number with which a library's holdings begin. It might be possible for the staff of the catalog to have some influence even with such meager information. The Bibliographical Center at Denver attempts to list actual holdings and has called attention to a few short runs which should be exchanged. It plans to do more about incomplete files in the future. The library of the University of Denver and the Denver Public Library have done a great deal of trading, but have not often needed to use the serial holdings in the union catalog for the purpose. Exchange activities of this sort have been frequent in the Atlanta-Athens area, according to the Supervisor of the union catalog there, although no actual records exist. The Nashville catalog contains all serial holdings in a separate file at the end of the entries for books; this simplifies keeping the holdings up-to-date. The administration there has had the fragments typed separately, and meetings of a Committee on Delimitation of the Fields of Interest have been called to plan a wise and fair distribution of the material. Both money and space can be saved the libraries by this service, which contains much greater potentialities than have yet been realized.

A guide in the planned distribution of duplicates.—No record is available at the Nashville catalog of what has been done to distribute duplicates with

its aid, but the Director states that gift collections have been checked with the catalog and allocated to cooperating libraries upon the basis of holdings. The Bibliographical Center at Denver has routed duplicates from the Denver Public Library, the University of Denver, and the University of Colorado to libraries in the region, according to needs shown by the catalog. It has also solicited duplicates from Harvard University and certain other libraries, particularly a large collection of German dissertations, distributing them to libraries in the region needing them. The Bibliographical Center at Philadelphia has experimented with distribution of duplicates, and its *News Bulletin* of September 12, 1941, contains a questionnaire concerning the desirability of more complete arrangements for a local exchange of discards. However, apparently no use of the union catalog has been made in connection with the exchange. Other regional union catalogs studied here—Cleveland, Columbus, Atlanta-Athens, and Nebraska—have not functioned in this way. Such service is closely related to the completion of partial serial files or broken sets, already described.

Aid in assigning material to a regional storage center.—None of the regions studied has a storehouse for little-used materials. In a metropolitan area where a number of libraries cooperate fully in service to the public and in establishment and maintenance of a storage center, it would be possible to check lists of books being considered for location in this center to make sure that at least one copy would still be available somewhere in the region. The word "storehouse" is not meant to suggest however that no service facilities would be provided for the materials located there. The union catalog might also show locations in the storehouse for these materials.

An aid to local colleges and universities in enlarging their curricula on the graduate level.—It is conceivable that an educational institution might have collections in a given field too inadequate to enable it to offer courses dealing with the subjects involved, while by pooling resources with other nearby libraries and making material available through a union catalog it might feel justified in expanding its curriculum in that direction. In no case could a supervisor or director cite an addition of courses actually made possible by the union catalog, although several, notably those at Denver, Nashville, Philadelphia, and Cleveland, thought the catalogs had broadened the field of research and made it possible for individual students to write theses upon subjects for which material would otherwise not have been accessible. The union catalogs have unquestionably, in the opinion of their administrators, been a direct influence in sending individuals to new and often unexpected sources. It was surprising, for example, to many students of mathematics to find a large collection in this field in the Library Company of Philadelphia.

It is certainly probable that union catalogs have given fuller justification

to curricular offerings already existing in some institutions by making accessible a much larger body of research materials near at hand.

Encouragement to local research.—The effect which the union catalogs have had in stimulating and aiding local research, both industrial and academic, can hardly be measured, but all the catalog administrators feel that it has been noticeable. Some research would not have been done at all, they think, without this key to research materials near at hand, and many other studies which might have been done were greatly facilitated by the catalogs.

CONTRIBUTIONS TO NATIONAL SERVICE

Titles contributed to the national union catalog.—Only one of the regional union catalogs, that at Philadelphia, has actually contributed any titles to the national union catalog at the Library of Congress, other than indirectly in checking the weekly search lists. Cards in the Philadelphia catalog are being sent to Washington and checked systematically tray by tray with the union catalog in the Library of Congress. Additional locations in the Philadelphia area are noted on cards for titles which the national catalog already contains, and new cards are added for items not represented there. Up to February 19, 1941, a total of 105 trays, through the alphabet to "Baur," had been checked. Of 89,770 titles contained in these trays, 31,746, or 35.36 per cent, could not be located by the Library of Congress Union Catalog. The average per cent of titles contained in the first 11 trays and located in only one library by the national catalog is 24. Merritt has given more detailed figures on this point.⁹

Items searched for the national union catalog.—Only two of the regional union catalogs studied are asked to check the weekly search lists of unlocated items sent out by the National Union Catalog to 57 research libraries in the nation. These lists, totaling 1,583 items in 1940, were sent to the Bibliographical Center for Research in Denver and the Union Library Catalogue of the Philadelphia Metropolitan Area. Of the total number, the Philadelphia catalog located 144, or 9.10 per cent; and the Denver Center located only eight, or .51 per cent, according to a count based upon data furnished by the Library of Congress. These, of course, represent titles already searched thoroughly with the national union catalog, but the contribution of the Denver catalog, particularly, does not seem to be very great.

To take the 9.10 per cent representing the proportion of titles on the National Union Catalog's search lists located by the Philadelphia catalog, and to compare it with the 61 per cent found by the 57 libraries circularized during 1940 would seem to indicate that several libraries in the group might also make direct contributions to our national catalog. This appears all the

⁹L. C. Merritt, "The Administrative, Fiscal and Quantitative Aspects of the Regional Union Catalog," in R. B. Downs, ed., *Union Catalogs* (Chicago: American Library Association, 1942).

more probable when we remember that approximately 35 per cent of the titles in the Philadelphia catalog are not contained in the union catalog at the Library of Congress, and yet the former can locate only 9.10 per cent of the titles on the national union catalog's weekly search lists.

It would seem desirable for the National Union Catalog to send these lists to all regional union catalogs, if only to secure a few locations for the titles in widely-scattered regions, and even though these additions would duplicate other locations reported.

TABLE 60
ITEMS SEARCHED FOR OTHER REGIONAL UNION CATALOGS DURING 1940

<i>Union Catalog</i>	<i>Number Searched</i>	<i>Number Located</i>	<i>Per Cent Located</i>
Bibliographical Center, Denver			
Cleveland	372	169	45.43
Columbus	460	52	11.3
Nebraska	71	12	16.9
Philadelphia	473		
Total	1,376	233	22.48*

* This percentage is based upon a total of 903 titles searched, which does not include those searched by the Philadelphia catalog, of which the number located has not been secured.

Items searched for other regional union catalogs.—Table 60 shows the number of titles searched in each union catalog for other regional union catalogs during 1940, and the number and per cent located. The Denver Center has sent many titles to other union catalogs to be searched, but has received an insignificant number from them. Complete records of these few are not available.

Of three catalogs possessing complete records on this point, the Cleveland catalog has been most successful in citing locations. It listed libraries holding 169, or 45.43 per cent, of the 372 titles for which locations were requested of it by other regional union catalogs during the year, a very high percentage for material already searched with one such union catalog and not located. The Nebraska catalog stands second among the three in this respect, having located 12 out of 71 titles, or 16.9 per cent. The catalog at Columbus received requests for the location of the largest number of items, 460, but was able to cite locations for only 52 of these, or 11.3 per cent. Even this seems a worthwhile service, for it means that more than one out of every 10 titles received, and already searched by another regional union catalog, were located. An average of 22.48 per cent, or 233, of the 903 titles for which locations were requested by the Cleveland, Columbus, and Nebraska catalogs was found by them. The percentage of duplication among the items searched or the items found is not known.

MISCELLANEOUS SERVICES

Reference questions.—Some requests received by the Philadelphia and Denver Centers can hardly be classified in any way except as reference questions. The Bibliographical Center at Denver received 231 such questions during the year 1940, according to actual count, and the Director of the Union Library Catalogue at Philadelphia estimated the number of reference questions received by it at about 800 for the same year. These questions involved the use of a variety of tools and could not be answered with the union catalog alone. Sample queries coming to the Denver Center are as follows:

What is the best work on Thorstein Veblen?

Is the Jean der Hoogts (?) Hebrew Bible an authorized edition and acceptable to the Jewish people?

Where can a list of civil service questions on acetylene, electric welding, pattern making, sheet metal work, etc., be found?

What is the address of the magazine writer Herschel S. Hall?

What was the exact year during the early 1890's when the Colorado legislature went to Santa Fe to visit the new Territorial legislator?

What is the location of the North Dakota State Historical Library?

These are obviously not questions which the staff of a union catalog might expect to receive or be expected to answer. Such questions might be referred to a reference librarian. Nevertheless, the staff of the Denver Center accepted them and spent considerable time in answering some of the more difficult queries. Out of 138 reference questions received during the sample six alternate months of 1940, the Center staff answered 110, or 80 per cent, satisfactorily.

An aid to order librarians.—Even a union catalog limited to author entries may furnish many bits of bibliographical information, including an author's full name, often the dates of his birth and death, the publisher of a given book and its place of publication, edition and series notes, as well as other items of information needed by order librarians, bibliographers, or research workers. It is usually the one source in the region where the cards for a large number of books may be consulted in one alphabet.

Appraisals.—A total of 277 books and periodicals were brought to the Bibliographical Center at Denver for appraisal during the year 1940. The fact that its Director had previously operated a store selling used books was partially responsible for requests for this service, which came from bookstores and individuals in Denver and the region. The union catalog was an aid only in identifying and comparing editions, and determining the scarcity of the books.

Other miscellaneous services.—Other miscellaneous services, totaling 88, were requested of the Denver Center during 1940. These included eight re-

quests for library statistics, one inquiry for the best book for a given purpose, and 16 requests for graduate study data. Perhaps none of these are services which union catalogs should perform. The citation of sources for graduate research is, however, a service which can well be performed by the staff of a bibliographical center having many subject bibliographies at hand.

The range of services which it is possible for a union catalog to perform or to assist in performing as a part of a bibliographical center is probably far greater than is realized by most librarians, although many potential services have not yet been put into effect. The gaps between actual and potential services will be discussed in a later chapter.

CHAPTER 10: *Union Catalog Patrons and Their Purposes*

THE GREAT MAJORITY OF REQUESTS RECEIVED DURING THE YEAR 1940 BY union catalogs considered in this study came from libraries, which accounted for 15,495, or 80.31 per cent, of the items.¹ The remaining 3,798, or 19.69 per cent, were requested by individuals. Thus approximately four out of every five requests came through libraries. The only catalog to receive a larger number of requests from individuals was the one at Philadelphia, reporting 52.9 per cent of its inquiries as having come from this source. The Columbus catalog's inquiries all came from libraries, as did over 94 per cent each of the Denver and Nebraska requests. Almost an equal number of those reaching the Cleveland center came from libraries and individuals—50.17 and 49.83 per cent respectively. See Table 61 for a summary of these figures.

TABLE 61
NUMBER OF ITEMS OF SERVICE REQUESTED BY LIBRARIES AND BY INDIVIDUALS DURING 1940

Regional Union Catalogs	Items of Service Requested by Libraries		Items of Service Requested by Individuals		Total
	Number	Per cent	Number	Per cent	
Bibliographical Center, Denver	8,406	94.02	535	5.98	8,941
Cleveland	744	50.17	739	49.83	1,483
Columbus	3,704	100.00	0	.00	3,704
Nebraska	414	94.74	23	5.26	437
Philadelphia	2,227*	47.10	2,501*	52.90	4,728*
Total	15,495	80.31	3,798	19.69	19,293

* The figures for the Philadelphia Catalogue represent only the number of inquiries rather than the number of items. This somewhat affects the percentages of the totals also. Substituting the total items of service for the Philadelphia Catalogue (24,275), for which a division by libraries and individuals is not available, we have a grand total of 38,840 items of service requested during the year.

Requests from libraries.—A tabulation of the Cleveland requests shows that the catalog served 55 libraries during the year 1940. Thirty-two of these

¹ These figures include only the number of inquiries, rather than number of items, for the Philadelphia catalog. If the number of items received by this catalog from each source were known and used, it would undoubtedly increase the total per cent requested by individuals from all catalogs.

were connected with a college or university, 12 were special libraries, eight were public, and two were in high schools.

The Columbus, Ohio catalog has served 180 institutions, 168 of them public libraries. Ten more are connected with a college or university, one with a high school, and one is a special library. This difference in the proportion of school and public libraries served by the Cleveland and Columbus catalogs is as planned, the former serving the college and university libraries of Ohio. Public libraries in the Cleveland area use the catalog there as intended.

The Nebraska catalog served 44 institutions—28 public libraries, 11 libraries connected with colleges and universities, three special, and two high school libraries.

No tabulation showing the total number of different libraries placing requests with the Bibliographical Center at Denver has been made, although the records indicate the number to be large.

The Union Library Catalogue of the Philadelphia Metropolitan Area reports service to 167 different libraries during the period from February 1 to June 30, 1941.² Ninety-three of these 167 are contributing, 52 non-contributing libraries of the region and 22 are noncontributing libraries and union catalogs outside the region.

Requests from individuals, direct and indirect.—Although libraries were responsible for placing approximately four out of five of the requests received by these regional union catalogs, the actual users in all cases were individuals. The identity and description of these persons and their purposes have been difficult items of information to secure. The users were known to those in charge of the catalogs in only a small per cent of the cases, and it was not always a simple matter to obtain data concerning them. Patrons placing requests over the telephone could seldom be induced to identify themselves, and 77.14 per cent of the 1940 Philadelphia inquiries came by this method, as shown in Table 62.

At the Nebraska catalog 34.26 per cent of items searched during the year were requests by telephone. Approximately one fifth, or 19.42 per cent, of the Cleveland items were thus requested, while less than one per cent of the Columbus inquiries were received by this method. No record of the form of request at Denver was kept, although filed correspondence indicates a heavy percentage of inquiries by mail. The per cent of the total items involved in telephone requests for the Cleveland, Columbus, and Nebraska catalogs, when combined with the total telephone inquiries (not items) for the Philadelphia catalog, is 39.11, as compared with 48.08 per cent received by mail, and 12.81 per cent made through personal applications. If the Philadelphia inquiries are translated into separate items of service (such as

² The Philadelphia Bibliographical Center and Union Library Catalogue, "The News Letter, No. 4" (September 12, 1941), p. 5 ff. (Mimeographed.)

TABLE 62
ITEMS OF SERVICE REQUESTED BY MAIL, TELEPHONE, AND PERSONAL APPLICATION
OF FOUR UNION CATALOGS DURING 1940^a

<i>Regional Union Catalog</i>	<i>Items of Service Requested by</i>					<i>Total</i>
	<i>Mail</i>	<i>Per Cent of Total</i>	<i>Telephone</i>	<i>Per Cent of Total</i>	<i>Personal Visit</i>	
Cleveland	578	38.98	288	19.42	617	14.16
Columbus	3,669	99.06	35	.94	0	.00
Nebraska	179 ^b	45.09	136 ^b	34.26	82 ^b	20.65
Philadelphia	440 ^c (2,355) ^d	9.70	3,499 ^e (18,726) ^d	77.14	597 ^e (3,94) ^d	13.16
Total	4,866	48.08	3,958	39.11	1,296	12.81
Estimated total	6,781 ^d	22.71	19,185 ^d	64.25	3,893 ^d	13.04
						29,859 ^d

^aNo record of the form of request of the Denver items has been kept, although evidence indicates a heavy percentage of requests by mail.

^bThe form of request was recorded for only 397 of the 437 items searched by the Nebraska catalog during 1940.

^cThe Philadelphia records note form of request only for the number of inquiries and not for the number of items requested.

^dThe percentage of Philadelphia inquiries received by each method has been translated into items of service in order to obtain the "estimated" totals.

number of titles searched) at the same percentage rates, the totals for all catalogs change to 64.25 per cent received by telephone, 22.71 per cent received by mail, and 13.04 per cent by personal application. These percentages are probably not true for items of service requested of the Union Library Catalogue of Philadelphia, however, because several thousand titles were searched by the Philadelphia Museum of Art and counted as only a small number of inquiries during the year. A correction upon this basis would greatly decrease the percentage of telephone inquiries.

Individuals making personal application are almost as hesitant as telephone callers about identifying themselves, and those who send inquiries by letter are most often librarians forwarding requests for patrons unnamed, or at least undescribed. The librarians of cooperating libraries in the Denver region were therefore requested to include a description of the borrower upon the slip (see Fig. 8), and were asked to fill out one slip for each interlibrary loan request placed during 1940 and January 1941. The description was to include the patron's academic status, if any, the field in which he was working, or his profession or vocation if he was not connected with an academic institution, as well as a statement of his purpose in requesting the book. The information secured in this way, together with some descriptions obtained from the Bibliographical Center records and staff members, constitutes our chief knowledge of the users of this catalog.

Individuals for whom services were requested of the Bibliographical Center during 10 months of 1940,³ and who could be fully identified, have been placed in four main groups according to occupations or professions: (1) academic, (2) commercial, (3) governmental, and (4) miscellaneous. Table 63 shows these divisions in terms of the number of items of service requested by each, such as titles to be located. This seems a more exact measure of actual use of the catalog by various groups than the number of inquiries would be, some of which involve several titles or items of service. Requests by catalogers for Library of Congress card numbers, and requests by the national union catalog for the location of titles on its extensive search lists, have not been included in the tabulation.

The academic groups.—The academic group requested by far the largest number of services, 1,689, or 81.63 per cent of the 2,069 included in the tabulation. The class has been defined as those individuals connected with academic institutions, and has been divided into three large groups: graduates, undergraduates, and teachers and full-time research workers connected with educational institutions, as distinguished from those engaged in commercial research. Teachers and full-time research workers requested 46.30 per cent of all services, or more than half of those desired by the academic groups, with college and university faculty members accounting for

³ The omissions were for August and December.

CLASSIFICATION OF USERS OF THE DENVER BIBLIOGRAPHICAL CENTER
SHOWING ITEMS OF SERVICE REQUESTED BY EACH GROUP^a

Class	Group	Subdivision	Items Requested		Totals for Groups		Totals for Classes	
			Number	Per Cent	Number	Per Cent	Number	Per Cent
Academic	Graduates	Working for Doctor's degree Working for Master's degree Graduate: degree unknown	2 99 483	.10 4.78 23.34	584	28.23		
	Undergraduates	College student High school student	145 2	7.01 .10	147	7.10		
	Teachers and academic research workers	College or university Public school Academic research workers	924 16 18	44.66 .77 .87	958	46.30	1,689	81.63
Commercial	Commercial laboratory workers		4	.19				
	Field researchers	Booksellers Other businessmen	3 15 91	.14 .72 4.40	113	5.46	113	5.46
	Businessmen		50	2.42	60	2.90	60	2.90
Governmental	City		4	.19				
	State		6	.29				
	National		50	2.42	60	2.90	60	2.90
Miscellaneous	Adult students	Organized study (extension, correspondence, night school) Private study Club work	26 22 13	1.26 1.06 .63	61	2.37		
	Others	Authors Librarians Others	19 71 56	.92 3.43 2.71	146	7.64	207	10.00
	Total		2,069		2,069		2,069	100.00

^a Based upon data secured from records of Denver Bibliographical Center and from librarians of cooperating libraries in Rocky Mountain region. This represents all items of service requested during ten months of 1940 by those patrons who could be fully identified, with the exception of requests for Library of Congress card numbers and requests from the national union catalog.

44.66 per cent, or almost half of the entire 2,069 items. Public school teachers requested only 16 items or .77 per cent, and full-time research workers asked for 18, or .87 per cent. Certainly this group of teachers and research workers, almost all of whom are connected with colleges and universities, were engaged chiefly in serious work, as will be indicated later.

The group which might be expected to do the next most serious work, the graduates connected with colleges and universities, requested the second largest number of services, 584, or 28.23 per cent of the total. The degrees for which those requesting 483 of these 584 items (23.34 per cent of the total) were working could not be learned, but 99, or 4.78 per cent, were desired by those identified as candidates for the master's degree, and only two, or .10 per cent, by those striving for the doctorate. A larger number of requests by those working for the master's degree is to be expected in a region where few institutions grant the doctor's degree, although it is very probable that at least a reasonable portion of the 483 requests mentioned above came from candidates for the doctorate. A substantial number of those in the region working for this more advanced degree are teachers, however, and have been included in that group, as will be shown in later figures.

Of the 147 services requested by undergraduates, college students accounted for 145, and high-school students for only two.

Miscellaneous group.—The miscellaneous group of individuals asked for the next largest number of services, 207, or 10 per cent of the total. The group has been divided into adult students and others, the former asking for only 61 items, or 2.95 per cent, and the latter for 146, or 7.06 per cent of the total. Aside from students, the group was divided into authors, librarians, and others, who requested 19, or .92 per cent, 71, or 3.43 per cent, and 56, or 2.71 per cent, respectively. These services were credited to librarians only when the material or information was desired for their own use, excluding the very large proportion of requests that they submitted in the interest of their individual libraries. Professional writers alone were considered as authors. Of course, a large number of additional requests were from faculty members and others who were writing books for publication.

No large group aside from authors and librarians fell into this miscellaneous division, although 10 requests came from lawyers, 10 from engineers, five from salesmen, and eight from the wives of faculty members. Those following a hobby accounted for at least seven of the services, and journalists, editors, laborers, nurses, musicians, painters, and genealogists for a smaller number each.

The 61 items requested by adult students were separated into those desired as an aid in organized study, such as extension, correspondence, and other adult classes, constituting 26, or 1.26 per cent of the items; those desired for private study, including 22, or 1.06 per cent; and those used by clubworkers,

amounting to 13, or .63 per cent of all the services. It is very possible that a portion of the requests coming from business men might properly be classed here with those desired by adult students.

Commercial groups.—The commercial groups requested the third largest number of services, 113, or 5.46 per cent, of the 2,069. Only four of these 113 services were rendered to commercial laboratory workers, three to field researchers, and 106, or 5.12 per cent, to business men and women. Fifteen of these 106 services were requested by booksellers, and 91 by other business men, consisting of auditors, jewelers, laundrymen, bankers, antique dealers, a building and loan association, a rubber company, and others whose business was unidentified. Three of the four commercial laboratory workers were connected with a steel, an iron, and a sugar company respectively.

Governmental groups.—Sixty requests, or 2.90 per cent of the total, came from public officials. Only four of these were from city officials, six from those in state positions, and 50 from officials of our national government. Denver is said to be the location of a larger number of national bureaus and divisions than any other city outside of Washington, D.C. Eleven of these 50 services were requested by the Denver office of the U.S. Bureau of Reclamation, and 32 by an aviation official.

The tabulation of users seems to prove that the greatest number of requests come from serious students or research workers. The largest percentages fall into divisions requested by those who might be expected to do the most serious work—namely, college and university teachers, graduate students, undergraduates, business men, librarians, and officials of the national government, in approximately the order listed.

PURPOSES OF PATRONS

The most elusive data to obtain have been those relating to the uses to which the patrons of these regional union catalogs have put the materials or information requested. It has often been possible to identify individuals without learning their purposes. A clear distinction between the uses made of the union catalog, such as the location of titles to be secured by interlibrary loan, and the actual uses made of the material or information when obtained should be kept in mind. These uses represent the final product of a union catalog's services, and the value of such a tool is determined largely by their importance.

As stated, librarians of cooperating libraries in the Denver region were asked to include the purposes of patrons on slips filled out with titles searched for borrowers through the Bibliographical Center during 1940. It has not always been possible for them to do so, however, even though they were previously asked to record the data as loans were requested. Additional information has been secured from the Center records and staff when possible. By

these methods, 1,038 individual items of service have been identified with the patron's final use of the material, as shown in Table 64.

Requests for Library of Congress card numbers and inquiries from the

TABLE 64
CLASSIFICATION OF USES MADE OF MATERIAL REQUESTED BY
PATRONS OF DENVER BIBLIOGRAPHICAL CENTER^a

<i>Classification of Uses</i>	<i>Five Odd Months</i>	<i>Five Even Months</i>	<i>Total for All Months</i>	<i>Per Cent of Grand Total</i>
A. Research on theses for doctor's degree	13	6	19	
master's degree	68	43	111	
unknown degree	54	46	100	
Total for A	135	95	230	22.16
B. Use in classwork by teachers	124	85	209	
undergraduates	3	8	11	
graduates	0	1	1	
Total for B	127	94	221	21.29
C. Use in work or business by national government officials	35	14	49	
state and city officials	1	3	4	
business men	1	11	12	
booksellers	6	9	15	
librarians	37	28	65	
Total for C	80	65	145	13.97
D. Research (excluding work on theses) by teachers and academic research workers	66	44	110	
miscellaneous individuals	10	5	15	
commercial laboratory workers	2	2	4	
field researchers	2	1	3	
businessmen	3	2	5	
Total for D	83	54	137	13.20
E. Authorship of books (not including theses) by teachers	12	31	43	
professional writers	13	5	18	
graduate students	1	18	19	
Total for E	26	54	80	7.71
F. Adult study in organized groups (extension, correspondence, etc.)	9	17	26	
study clubs	9	4	13	
private	11	11	22	
Total for F	29	32	61	5.88

UNION CATALOGS IN THE UNITED STATES

TABLE 64—Continued

<i>Classification of Uses</i>	<i>Five Odd Months</i>	<i>Five Even Months</i>	<i>Total for All Months</i>	<i>Per Cent of Grand Total</i>
G. Use in writing class papers by graduates undergraduates	7 19	10 12	17 31	
	26	22	48	4.62
H. Miscellaneous uses	30	24	54	5.20
I. Use in hobby interests by businessmen others	2 8	2 14	4 22	
	10	16	26	2.50
J. Authorship of magazine articles by teachers national government officials graduates	8 0 1	0 1 1	8 1 2	
	9	2	11	1.06
K. Cultural use	3	7	10	.96
L. Recreational use (including drama club reading)	3	6	9	.87
M. Preparation of speeches	6	0	6	.58
Total for all 13	567	471	1038	100.00

^aThese figures compare the number of items of information used for various purposes during two groups of five alternate months of 1940 each (August and December excluded) in all cases in which the use could be learned either from the Bibliographical Center records or from the librarians placing the requests. Computed by the Pearson Product-Moment method the coefficient of correlation for the two groups is .95. The standard error of the coefficient is .03.

national union catalog have not been included in the table. The former constitute the largest number of items for which use is known, but records of them have been grouped in such a way that they would overbalance one of the periods if included in the tabulation.

Uses reported have been classified into 13 groups, the largest of which includes research upon theses. Two hundred and thirty, or 22.16 per cent, of the 1,038 items are listed as being utilized for this purpose, and many other items requested by those identified as teachers or graduate students were probably used in the same way. These uses have in no instance been assumed simply because of the nature of a title and the vocation of the borrower. They have been listed only when records at the Center, or those furnished by the requesting librarian, have definitely stated that a given use has been made of the material. Out of the 230 items mentioned above, 19 were used in writing doctors' theses, and 113 in preparing masters' theses. One hundred more items were listed as used in thesis work, without more specific

information being given. A large number of the other 483 items known to be borrowed by graduate students were also very likely used for this purpose.

The second largest number of items were borrowed for classwork, the majority of them by teachers, who requested 209 of the 221 titles included in this group. Two courses involving a great many students were responsible for a large portion of these requests by teachers. The group of 221 items represents 21.29 per cent of the entire tabulation. The small number of items (11) requested for undergraduates is probably a result of the belief of librarians that interlibrary loans for these students are not justified.

Use in work or business by officials of the national, state, and city governments, by businessmen, booksellers, and librarians forms the third largest group and includes 145 items, or 13.97 per cent of the total. Librarians accounted for 65 and national government officials for 49 of these requested services. Booksellers secured appraisals or bibliographical information in 15 instances, and businessmen secured needed materials in 12 more.

The fourth group includes items used for research, excluding the writing of theses, and contains 137 titles, or 13.20 per cent of the total. Teachers and academic research workers utilized 110 of these items, miscellaneous individuals 15, and business men, commercial laboratory workers, and field researchers five, four, and three respectively.

Authorship of books created the next greatest demand, involving 80 items, or 7.71 per cent of the tabulation. Teachers used 43 of these, graduate students 19, and professional writers the remaining 18.

The sixth group consists of adult students using 61, or 5.88 per cent of the items. Twenty-six of these were used in organized groups, including extension and correspondence courses, 22 in private study, and 13 in study clubs.

Forty-eight items were requested as aids in writing class papers by graduate and undergraduate students. These represent 4.62 per cent of the total.

Hobby interests were responsible for 26 items; the writing of magazine articles, chiefly by teachers, for 11; cultural uses, 10; recreational reading, including drama-reading clubs, for nine; and the preparation of speeches, for six.

The entire tabulation includes all verified uses made during ten months of 1940 except those mentioned earlier. Data for one summer and one winter month, August and December, have not been secured. In order to test the reliability of the sample, the data for these 10 months have been paired into two groups of five alternate months each, one group including January, March, May, July, and October, and the other the alternates among the 10, or February, April, June, September, and November. The coefficient of correlation of the 13 pairs of group totals has been computed by the Pearson Product-Moment method and found to be .95. The standard error of the

correlation coefficient is .03. We can therefore safely say that in so far as this sample is representative of all groups using the materials, and in so far as those using the Denver Catalog are representative of those using other catalogs, we may expect these uses to assume approximately the ranks shown in Table 64. This places research by faculty, graduates, and others, use in college and university classwork, vocation or business, and use in authorship high. The less serious hobbies, and the general cultural and recreational uses, fall quite low in a percentage ranking.

CHAPTER 11: *Types and Classes of Material Requested*

TYPES OF MATERIAL

Date of publication.—An attempt has been made to analyze titles searched in the various union catalogs by date of publication to learn the age of the material most often demanded to satisfy the purposes of patrons. If locations or other services for books published within a given period are never or seldom requested, it may be that the expense of listing and giving space to that particular group is not justified. On the other hand, if material published within a certain period represents any large percentage of all titles for which inquiries are received, it should certainly be considered for first inclusion in any catalog of limited scope.

Records of the Bibliographical Center at Denver usually include date of publication listed in full for all titles. Dates are sometimes, though far from always, given in the Cleveland, Nebraska, and Philadelphia records, but almost never in those at Columbus, Ohio. Additional dates have been supplied when practicable for the titles requested during a sample six alternate months of 1940. The year of publication was added for almost all Denver titles lacking it when they were searched with the Library of Congress Union Catalog, the Union Catalog in the University of Chicago Libraries, and with other sources. The year of publication has been added to the Cleveland and Columbus titles by checking with the Columbus' union catalog and with other bibliographical tools. Dates secured from all sources for the titles searched in each catalog have been tabulated by 5-, 10-, 25-, 50-, and 100-year periods, as shown in Table 65.

It will be seen from an examination of the above table that books published since 1925, and particularly those issued from 1936 to 1940, are in most demand. The latter period ranks first for each catalog and includes 1,099, or 25.05 per cent, of the total of 4,387 titles for which dates have been secured. A total of 2,360, or 53.78 per cent of all titles analyzed, fall within this last 15-year period. Only 557 titles, or 12.69 per cent of the group, were published prior to 1876, the period covered by the Historical Records Survey.

The median for the combined groups falls between 1927 and 1928 and slightly nearer the latter. Approximate medians for the individual catalogs are 1918 for Cleveland, 1923 for Nebraska, 1926 for Philadelphia, 1930 for

NUMBER AND PER CENT OF ITEMS REQUESTED BY EACH UNION
CATALOG BY DATE OF PUBLICATION^a

Date of Publication	Cleveland		Columbus		Denver		Nebraska		Philadelphia		Total	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Five-Year Periods												
Ten-Year Period												
1901-10	26	7.45	16	3.92	189	6.69	13	10.48	42	6.18	286	6.52
Twenty-five-Year Periods												
1876-1900	44	12.61	14	3.43	343	12.14	11	8.87	64	9.41	476	10.85
1851-1875	27	7.74	7	1.72	147	5.20	8	6.45	38	5.59	227	5.17
1826-1850	12	3.44	4	.98	87	3.08	1	.81	18	2.65	122	2.78
1801-1825	9	2.58	3	.74	24	.85	1	.81	15	2.21	52	1.19
Fifty-Year Periods												
1751-1800	15	4.30	0	.00	32	1.13	3	2.42	20	2.94	70	1.60
1701-1750	12	3.44	0	.00	21	.74	2	1.61	10	1.47	45	1.03
One hundred-Year Periods												
1601-1700	3	.86	0	.00	9	.32	0	.00	11	1.62	23	.52
1501-1600	3	.86	1	.25	7	.25	0	.00	7	1.03	18	.41
All 15 groups	349	100.00	408	100.00	2,826	100.00	124	100.00	680	100.00	4,387	100.00

^aThis table includes all titles for which dates of publication could be secured and which were searched in the Cleveland and Nebraska Union Catalogs during ten months of 1940 (excluding August and December), and in the Columbus and Philadelphia catalogs during six alternate months each. Percentages are therefore much more valid basis of comparison than number of titles. The median for the combined groups lies between 1927 and 1928. Median for the individual catalog (by nearest approximate date): Cleveland—1907; Columbus—1912; Philadelphia—1928.

Denver, and 1932 for Columbus. The median of these medians is 1926.

It is interesting to note that only 156, or 3.56 per cent, of the 4,387 titles were published as early as 1800, and only 330, or 7.52 per cent, before 1851, although these titles were, perhaps, located in fewer libraries. It is possible that there has been a tendency to send requests for older material to the Library of Congress Union Catalog instead of to the regional catalog, though this assumption has not been verified. It should be remembered, of course, that there are in existence a far larger number of books published during earlier periods of similar lengths. A comparison of the proportion of titles contained in these union catalogs and published during given periods, with the proportion bearing these dates which were searched, would be interesting and would be a better measure of the service rendered per card for the various period classifications. Complete data for this comparison are not now available.

An analysis of requests for material dated during the most recent five-year period, 1936-40, shows that one out of every four titles requested falls within this period. The last full year prior to that during which the items were searched (1939) is, consistently for each catalog, the date of the largest number of titles published which were searched during 1940. The year 1938 ranked second in each instance except two. It tied with 1937 in the case of the Cleveland catalog and was exceeded only by that year in the case of the Philadelphia center. See Table 66 for complete figures.

Findings shown in Tables 65 and 66 and discussed here would hardly seem to justify exclusion from union catalogs of material published during any given period. Certainly, recently published items could not be eliminated, and the earlier periods probably do not involve a large enough number of cards to represent any considerable saving by their exclusion. The expense of separating them also needs to be considered. It would appear to be desirable to include the more recently published material first, and to add new accessions as promptly as possible in order to satisfy the largest number of requests.

Proportion of book and serial publications.—Only the Denver Catalog and the Union Catalog of Libraries, Nashville, show periodical holdings by volume and date, but a union list of serials has been mimeographed for the Atlanta-Athens area. This list, though soon out of date, will remain valuable because it will continue to show sufficient locations for many titles, and each library in the region should be able to possess a copy and thus speed and facilitate borrowing from others. The Director of the Nashville catalog considers location of serials an important function of this tool, and all such titles are filed in a separate alphabet for ease of maintenance. An attempt was made originally to show specific holdings in the Denver Union Catalog, but certain errors in the records were discovered, and they have been corrected

TABLE 66
DISTRIBUTION OF REQUESTS FOR MATERIAL PUBLISHED 1936-40^a

Date of Publication	Cleveland		Columbus		Denver		Nebraska		Philadelphia		Total	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
1940	11	3.15	17	4.17	64	2.26	3	2.42	32	4.71	127	2.89
1939	25	7.16	37	9.07	186	6.58	11	8.87	40	5.88	299	6.81
1938	16	4.58	24	5.88	169	5.98	6	4.84	32	4.71	247	5.63
1937	16	4.58	23	5.64	161	5.69	5	4.03	34	5.00	239	5.45
1936	10	2.87	18	4.41	131	4.63	3	2.42	25	3.68	187	4.26
1936-40	78	22.35	119	29.17	711	25.16	28	22.58	163	23.97	1,099	25.05

^aEach per cent is of total analyzed for that catalog.

in a new card list compiled by a member of the staff. Other union catalogs mentioned in this study show only the date each periodical began publication and libraries holding some numbers or volumes. The Bibliographical Center at Philadelphia, in cooperation with the Special Libraries Council, is also working upon a checklist of specific periodical holdings of Philadelphia libraries.

Availability of union lists and the lack of records of specific holdings in several of the catalogs are two factors which have no doubt decreased the number of inquiries for periodical locations. A count discloses that only 24, or 1.83 per cent, of the titles searched with the Columbus Union Catalog during six alternate months of 1940, were serials, if we consider all titles similar to those contained in Wilson's *Union List* as included within our definition of the term. Of items for which location service was requested of the Denver catalog during these same six months, 22.40 per cent were serial publications. The difference in percentages for the Columbus and Denver catalogs is to be expected because of the difference in types of patrons, Columbus serving small public libraries, and Denver receiving requests largely from college and university libraries. It is also true that only one or two institutions in the Rocky Mountain region are represented in the older *Union List of Serials in the United States and Canada*, as compared with several in Ohio and neighboring states. Of the titles included in inquiries to the Cleveland catalog during 1940, a total of 7.47 per cent were serials. This is greater than the percentage for Columbus because college and university librarians and faculty members placed a majority of the Cleveland requests, but it is smaller than the proportion for Denver, no doubt because of the greater accessibility of one or two large periodical collections and their representation in the *Union List*. Eleven and seven-tenths per cent of Philadelphia titles included in the sample for which inquiries were received over the telephone during six alternate months of 1940 were serials. On the other hand, if all items searched in person, including the large number searched by the Philadelphia Art Museum, were considered, the percentage of serials would probably be much smaller.

In order to test the consistency of the Cleveland sample, items contained in it, arranged by date of request, were thrown alternately into two random groups, and the number of books and periodicals counted for each group by months. The coefficient of correlation for the two groups of periodicals was then computed by the Pearson Product-Moment method and found to be .33. The standard error of the coefficient is .28, which means that the chances are seven to one that in an infinite number of such samples a positive correlation between the two groups would be found. This indicates that the proportion of books to periodicals is fairly consistent throughout the 12 months, and shows the desirability of including full serial entries in union catalogs.

SUBJECT CLASSIFICATION OF ITEMS REQUESTED

In order to determine subjects represented by items for which location or other services were requested of regional union catalogs, titles received during a period of six alternate months in 1940 by the Cleveland, Columbus, and Denver catalogs were classified carefully by checking them with the Library of Congress Union Catalog, with the Union Catalog in the University of Chicago Library, and with other bibliographical tools. Classification numbers were copied from Library of Congress, John Crerar, and other cards containing them, and Library of Congress classification numbers and subject headings were then translated into Dewey decimal numbers. A great amount of time and effort was expended in securing class numbers and subject headings for the material or adequate descriptions of it. These titles were then grouped by actual class numbers according to the main divisions of the Dewey decimal system, with important subdivisions shown under each. See Table 67.

These class groups are arranged according to rank of the combined totals, with history leading in number of titles included in requests coming to each catalog. This subject represents 22.80 per cent of items checked with the three catalogs during the six-month period. Social science (excluding history, geography and biography) ranks second for each of the three catalogs, and constitutes 16.17 per cent of the grand total. The place of third rank is alternately given to useful arts and literature, the former finally carrying third place when the percentages were totaled, but giving way to literature in both the Cleveland and Denver individual ratings. The variations shown in Table 67 in the case of Columbus, are explained by the academic nature of a large number of the institutions patronizing the other two catalogs, as compared with the small-town libraries using the Columbus instrument. Patrons of these small libraries are possibly laborers, farmers, housewives, and businessmen, who are more interested in medicine, engineering, agriculture, home economics, and business than in literature. Fifth place falls to pure science, so ranked by Cleveland and Denver, although it is eighth in the Columbus ratings. Science accounts for 8.69 per cent of the grand total. Philosophy, fine arts, religion, general works, and philology fill sixth, seventh, eighth, ninth, and tenth place respectively, but with no common agreement among the three catalogs. In only two cases, however, is there a difference of more than two ranks between the lowest and the highest rating for the individual catalogs. General works, including bibliographies, general periodicals, journalism, and library science, were only tenth in demand at the Columbus catalog, despite the fact that they were seventh at Cleveland and sixth at Denver. Philosophy, including psychology, earned fifth place at Columbus, sixth at Cleveland, but only eighth at Denver. The Columbus demand is perhaps another evidence of the popularization of

TABLE 67
SUBJECT CLASSIFICATION OF TITLES CHECKED WITH THE CLEVELAND,
COLUMBUS, AND DENVER UNION CATALOGS^a

Subject Classification	Cleveland			Columbus			Denver			Total		
	Number	Per Cent	Rank of Group	Number	Per Cent	Rank of Group	Number	Per Cent	Rank of Group	Number	Per Cent	Rank of Group
A. History												
Universal	3	1.4		4	44		4	215		11	273	
Geography and travels	14	36		98	90		90	224		10	224	
Biography	0	0		3	3		1	4		4	4	
Ancient history	3	1		39	35		35	77		4	77	
Europe	1	0		1	1		2	4		4	4	
Asia	0	0		1	0		0	1		1	1	
Africa	11	0		35	56		56	102		4	102	
North America	0	0		0	4		4	1		1	1	
South America	0	0		0	1		1	1		1	1	
Other	0	0		0	0		0	0		0	0	
Total for A	68	17.44	1	225	17.27	1	408	29.54	1	701	22.80	1
B. Other social sciences												
Sociology	2	1		19	14		14	35		10	35	
Statistics	6	6		0	9		9	10		45	10	
Political science	7	11		19	20		20	103		32	103	
Economics	2	2		34	62		62	32		20	32	
Law	3	29		7	14		14	37		16	37	
Administration	1	1		12	6		6	170		16	170	
Associations and institutions	3	3		19	15		15	29		16	29	
Education	3	3		90	51		51	16		16	16	
Commerce and communication				1	14		14					
Customs				15	11		11					
Total for B	65	16.67	2	216	16.58	2	216	15.64	2	497	16.17	2

TABLE 67—Continued

Subject Classification	Cleveland			Columbus			Denver			Total		
	Number	Per Cent	Rank of Group	Number	Per Cent	Rank of Group	Number	Per Cent	Rank of Group	Number	Per Cent	Rank of Group
C. Useful arts and applied science												
Medicine	27			83			58			168		
Engineering	11			55			36			102		
Agriculture	5			15			32			52		
Home economics	6			19			5			30		
Communication, business	1			20			14			35		
Others	4			22			22			48		
Total for C	54	13.85	4	214	16.42	3	167	12.09	4	435	14.15	3
D. Literature												
Fiction	25			58			74			157		
Poetry	9			24			31			64		
Drama	7			13			24			44		
Other	17			77			54			148		
Total for D	58	14.87	3	172	13.20	4	183	13.25	3	413	13.43	4
E. Pure science												
General	7			3			14			24		
Mathematics	4			7			5			16		
Astronomy	0			7			2			9		
Physics	6			10			5			21		
Chemistry	7			10			25			42		
Geology and paleontology	2			4			16			22		
Biological science	19			40			74			133		
Total for E	45	11.54	5	81	6.22	8	141	10.21	5	267	8.69	5

TABLE 67—Continued

Subject Classification	Cleveland			Columbus			Denver			Total		
	Number	Per Cent	Rank of Group	Number	Per Cent	Rank of Group	Number	Per Cent	Rank of Group	Number	Per Cent	Rank of Group
F. Philosophy	28			47			33			108		
	8			87			30			125		
	36	9.23	6	134	10.28	5	63	4.56	8	233	7.58	6
Total for F												
G. Fine arts	1			8			5			14		
	0			22			8			30		
	11			24			15			50		
	2			32			29			63		
	3			40			11			54		
	17	4.16	9	126	9.67	6	68	4.92	7	211	6.86	7
Total for G												
H. Religion	19	4.87	8	108	8.29	7	35	2.53	9	162	5.27	8
I. General works												
	2			2			23			27		
	0			0			3			3		
	5			1			11			17		
	3			8			18			29		
	8			0			16			24		
	4			1			8			13		
Total for I	22	5.64	7	12	.92	10	79	5.72	6	113	3.68	9

TABLE 67—Continued

Subject Classification	Cleveland				Columbus				Denver				Total	
	Number	Per Cent	Rank of Group	Number	Per Cent	Rank of Group	Number	Per Cent	Rank of Group	Number	Per Cent	Rank of Group		
J. Philology	0				1			7			8			
	2				11			5			18			
	4			3			9			16				
	6	1.54	10	15	1.15	9	21	1.52	10	42	1.37	10		
Total for J	390	100.00		1,303	100.00		1,381	100.00		3,074	100.00			
Grand Total														

*This table includes titles checked with the Cleveland, Columbus, and Denver catalogs during the six odd months of 1940 for which classification numbers could be secured. Computed by the Spearman rank difference method, the coefficient of correlation for the Cleveland and Columbus group totals is .81. Translated into r by Rugg's table (*Statistical Methods Applied to Education*, p.401), this coefficient is .82, and its standard error is .1. The coefficient of correlation for the Cleveland and Denver groups is .94, or .95 by Rugg's table. For the Columbus and Denver groups, the coefficient of correlation is .75, or .77 when translated into r . The standard error of the .94 is .04, and for the .77 it is .13.

psychology. Eighty-seven titles in this field, as compared with 47 for philosophy, were checked with the union catalog there. At Cleveland and Denver, philosophy received the greater demand although the difference was slight for the latter catalog.

A closer look at the various subdivisions of these 10 main classes is worth while. Geography and travels and biography compete for first place in the history section, with 273 and 224 titles respectively, and the history of North America, with 102, wins a slight edge over that of Europe. In the other social sciences, education, with 170 titles, is first, and economics, with 103, is second. Political science, associations and institutions, general sociology, and law follow in the order named. In useful arts, medicine comes first for each catalog, with a total of 168 titles. Medicine is followed by engineering, with 102 items, and then agriculture, with 52. One hundred and fifty-seven titles of fiction, 64 of poetry, and 44 of drama were checked with the catalogs during this period. Biological sciences are first among the pure sciences, and are represented by 133 items as compared with 42 in chemistry, which is next in size. Twenty-four titles fall into general science, 22 into geology, and 21 into physics. Philosophy is outranked by psychology, 125 to 108, only because of the Columbus demand previously mentioned. Amusements, music, and photography are the most popular of the fine arts. As might be expected, a larger proportion of bibliographies are involved in requests received at Denver because of the bibliographical center located there. Religion plays a much more prominent part in the Columbus inquiries than in those of the catalogs chiefly serving academic institutions. This is a subject more often studied in the home and with materials from public rather than college or university libraries.

The 10 group-totals for the Cleveland and Columbus catalogs have been correlated by the Spearman rank difference method and the coefficient found to be .81, or .82 when translated into r , with a standard error of .1. The correlation coefficient for the Cleveland and Denver group-totals is greatest of all, .94, or .95 when translated into r , with a standard error of .04. The Columbus and Denver groups have a coefficient of .75, or .77 in r , with a standard error of .13. In each case the chances are great that in an infinite number of samples from these catalogs a positive correlation in the rank of subjects would be found. Therefore, if our samples represent all materials in the proportions in which they have been requested of the various catalogs, and there is every reason to believe they do, we may safely expect the subjects of requests from other samples to assume approximately the ranks shown in Table 67. This places history (including travel and biography), the other social sciences, useful arts, literature, and pure science in the upper half, with philosophy, fine arts, religion, general works, and philology in the lower half. No large group of materials falls sufficiently low to warrant ex-

clusion from a union catalog serving the general public, but there is sufficient evidence to guide one in determining subjects to be included in a selective catalog. Figure 9 graphically illustrates the proportion of requests representing each of the 10 main classes individually for the three catalogs, and shows the close agreement among them.

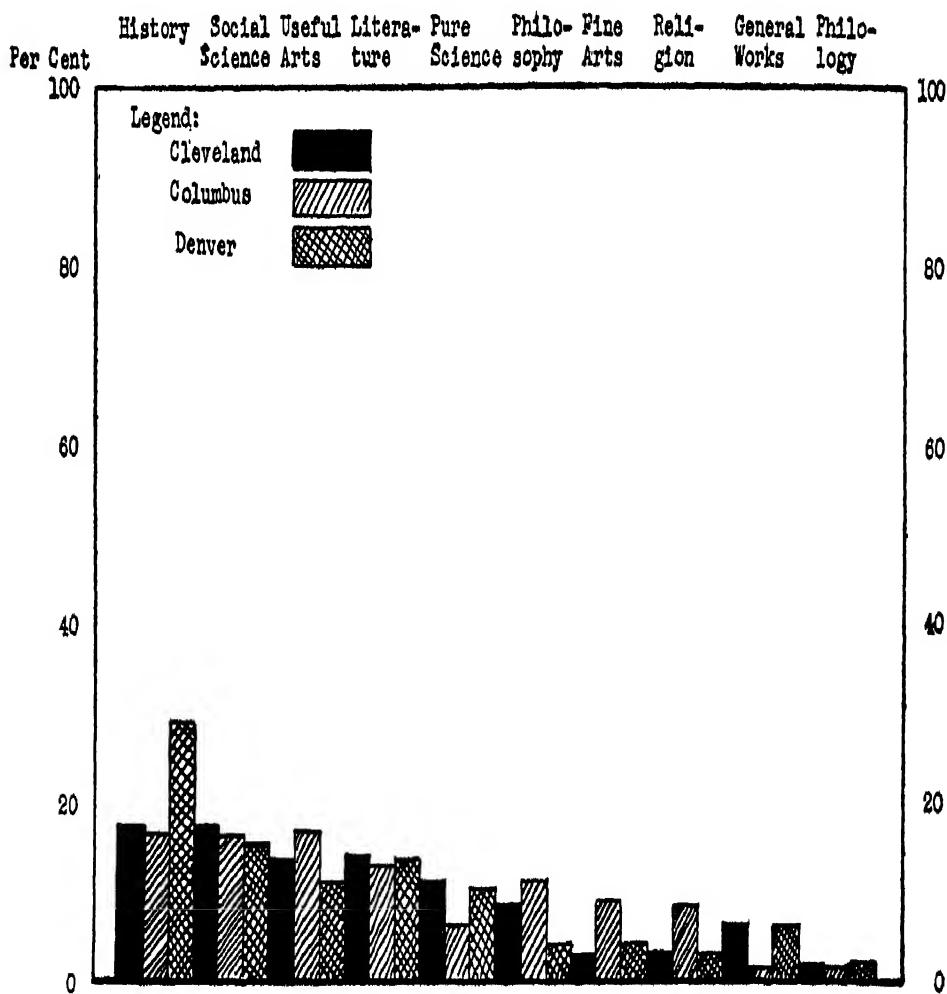


Fig.9.—Percentage of distribution in a subject classification of requests received by the Cleveland, Columbus, and Denver union catalogs.

CHAPTER 12: *Libraries Holding Items for which Locations Have Been Requested*

THE NUMBER OF TITLES HELD BY A GIVEN LIBRARY IN A REGIONAL UNION catalog but not held by other libraries, may be considered a measure of that library's potential contributions to regional service. Another and perhaps more important measure is the number of such titles for which locations have actually been requested. These titles more surely represent materials of value to research workers and others who use the union catalogs.

In an attempt to learn what types of libraries do contribute the largest percentage of needed items, a tabulation has been made of all locations cited by the Cleveland, Columbus, Denver, Nebraska, and Philadelphia union catalogs during 1940, showing all libraries possessing a copy of each title checked.¹ This tabulation reveals the number of titles held solely by a given library, or by it and only one, two, three, four, five to nine, and ten or more others. Obviously, a title held by ten or even five other libraries in the region is far less of a contribution to a union catalog than a title held by one or two libraries. It seemed desirable, therefore, to devise some sort of scoring system which would make it possible to express a library's service with a single figure. In the system decided upon, a library was given only one point for a title entered in the union catalog and held by it and ten or more others. For a title held by from six to ten libraries, each institution received two points. An item held by five libraries was given three points, if held by four libraries, four points, by three libraries, five points, by only two libraries, ten points, and by a single library in the region, a full 15 points. Thus, a library possessing one requested title held by no other libraries in the region, one title held by only one additional library, and four titles held by four others received a score of 37.

THE CLEVELAND UNION CATALOG

Nineteen of the 42 libraries represented in the Cleveland Union Catalog failed to hold any titles checked of which they were the sole possessors, and four institutions did not show locations for any of the needed titles. The number of sole locations ranged from zero to 56, and the total individual

¹ Only the ten months of 1940, excluding August and December, are represented by the Denver figures.

UNION CATALOGS IN THE UNITED STATES

TABLE 68

**LIBRARIES INCLUDED IN CLEVELAND REGIONAL UNION CATALOG
SCORED BY NUMBER AND SCARCITY OF TITLES CITED
IN THEM^a**

Library	Volumes	Number of Sole Locations	Per Cent of Sole Locations	Score	Rank
Public Libraries with Over 500,000 Volumes					
Cleveland Public	2,042,923	56	29.47	1,751	1
University Libraries with Over 500,000 Volumes					
University of Michigan	1,025,815	31 ^a	16.32	1,246	2
Ohio State University	496,806	18	9.47	869	3
Western Reserve University	508,000	14 ^a	7.37	531 ^a	5 ^a
Median of group	508,000	18	9.47	869	3
College and University Libraries with 100,000-500,000 Volumes					
Oberlin College Library	386,664	18	9.47	603	4
University of Cincinnati	449,258	12	6.32	496	6
Miami University	146,500	3	1.58	188	8
Ohio Wesleyan	170,352	6	3.16	185	9
Median of group	278,508	9	4.74	186.5	7
Public Libraries with 100,000-500,000 Volumes					
Cleveland Heights	133,331	1	.53	142	10
East Cleveland	107,579	0	.00	99	13
Median of group	120,455	.5	.26	120.5	11.5
College and University Libraries with 50,000-100,000 Volumes					
Xavier University	74,265	2	1.05	71	16
Hebrew Union College	90,000	4	2.11	65	17
Median of group	82,132.5	3	1.58	68	16.5
College and University Libraries with 25,000-50,000 Volumes					
Flora Stone Mather College	47,400	2	1.05	121	12
John Carroll University	31,000	1	.53	51	21
Median of group	39,200	1.5	.78	86	16.5
Public Libraries with 50,000-100,000 Volumes					
Lakewood Public	77,026	0	.00	52	20

TABLE 68—Continued

Library	Volumes	Number of Sole Locations	Per Cent of Sole Locations	Score	Rank
College and University Libraries with Less than 25,000 Volumes					
Notre Dame College	17,000	3	1.58	124	11
Cleveland College	13,500	1	.53	86	14
Fenn College	11,726	0	.00	45	22.5
St. Mary's Seminary		0	.00	19	28
Ursuline College		0	.00	17	30
Median of group	13,500	0	.00	45	22.5
Other Special Libraries					
Western Reserve Historical Society	200,000	9	4.74	233	7
Cleveland Museum of Art	15,873	1	.53	60	19
Hayes Memorial		1	.53	25	25
Clements Library (University of Michigan)	31,380	1	.53	24	26
Cleveland Museum of Natural History	14,000	1	.53	23	27
Federal Reserve Bank		0	.00	7	34
Rowfant Club		0	.00	6	35
The Temple		0	.00	2	37
Median of group		1	.53	23	26.5
Professional and Technical Schools, including Some University Departments					
Cleveland Medical Library (Allen Memorial)		1	.53	72	15
Case School of Applied Science	33,000	2	1.05	62	18
Western Reserve University School of Law	49,000	2	1.05	45	22.5
Thwing Hall (Library Science, Western Reserve University)	7,400	0	.00	30	24
Western Reserve University School of Medicine	31,000	0	.00	18	29
Cleveland School of Art	4,655	0	.00	12	31.5
Lakeside Surgical Library		0	.00	8	33
Pediatrics and Maternity (Western Reserve University)		0	.00	5	36
Lakeside Medical Library	6,333	0	.00	0	40.5
Western Reserve University School of Applied Science	5,200	0	.00	0	40.5
Median of group	7,400	0	.00	15	30.25
Smaller Public Libraries					
Board of Education (Branch of Public)		0	.00	12	31.5
Nela Park		0	.00	1	38
Garden Center		0	.00	0	* 40.5
Median of group		0	.00	1	38

TABLE 68—Continued

Library	Volumes	Number of Sole Locations	Per Cent of Sole Locations	Score	Rank
High School Libraries					
Benedictine High School		0	.00	0	40.5
Total	190	100.00	7,406	42	
Median of 42 libraries		1	.53	48	21.75

^aSources: records of the Union Catalog showing all locations cited for each title searched during 1940; *American Library Directory*, 1939, for number of volumes in each library.

The score is based upon a scale devised to give greater credit to those citations for titles held by the fewest libraries. Several departmental libraries of Western Reserve University have been scored separately.

scores from zero to 1,751. These libraries are classified roughly in Table 68 by type and number of volumes, in an effort to discover characteristics of libraries earning high scores as contrasted with those receiving low scores.

An examination of this table indicates that the chief clue to an estimate of a library's possible contributions to union catalog service is the number of volumes which the library contains. The rank of these 42 libraries according to the scoring system used here is, with very few exceptions, almost exactly in the order of size. Western Reserve University Library, with 508,000 volumes, would have a score of 836 and rank much higher, if it were credited with locations shown for its various divisions classed here separately. The Clements Library, with a score of 24, is also a part of the University of Michigan Library. Special libraries fall low in the scale, but their collections are small.

The median number of sole locations for libraries represented in the Cleveland catalog is one, which is .53 per cent of the total of such locations for the year. The median score is 48.

THE DENVER UNION CATALOG

Fourteen libraries contributing to the union catalog at Denver failed to show any sole locations, and four of these furnished no citations at all. Both the largest number of unique titles, 90, and the largest score, 2,398, were earned by the Denver Public Library, which contains the largest number of volumes. Second rank goes to the next largest library, the University of Colorado, with a score of 2,318. Third rank is held by Colorado College, which has only 112,000 volumes and a score of 1,381. The library most out of line is the Colorado State Library with its 250,000 volumes, a score of only 10, and no sole locations. Comparatively few of its materials, however, are of a research nature. The Wyoming Historical Library, on the other hand, also has a low score. Its restricted scope decreases the probability of its having many of the titles checked with the union catalog.

TABLE 69

LIBRARIES INCLUDED IN THE DENVER CATALOG SCORED BY NUMBER
AND SCARCITY OF TITLES CITED IN THEM^a

Library	Volumes	Number of Sole Locations	Per Cent of Sole Locations	Score	Rank
Public Libraries with 100,000-500,000 Volumes					
Denver Public Library	403,953	90	27.19	2,398	1
Public Libraries with 50,000-100,000 Volumes					
Colorado Springs Public	54,881	12	3.63	533	7
College and University Libraries with 50,000-100,000 Volumes					
University of Denver	95,000	33	9.99	1,335	4
Wyoming University	92,000	5	1.51	401	8
New Mexico University	64,010	1	.30	15	27
Median of group	92,000	5	1.51	401	8
College and University Libraries with 100,000-500,000 Volumes					
University of Colorado	293,315	77	23.26	2,318	2
Colorado College	112,000	41	12.39	1,381	3
Brigham Young University	107,170	2	.60	102	16
University of Utah	137,613	1	.30	30	22
Median of group	124,806.5	21.5	6.50	741.5	9.5
College and University Libraries with 25,000-50,000 Volumes					
Regis College	37,000	5	1.51	147	13
Professional and Vocational Schools					
Colorado State College of Agriculture	90,000	16	4.84	619	5
Colorado State College of Education	97,168	6	1.81	592	6
Colorado School of Mines	36,000	3	.91	183	11
Denver Public Schools Professional Library		4	1.21	139	14
Adams State Teachers College	12,460	1	.30	82	18
Iliff School of Theology	23,000	2	.60	66	20
University of Denver Library School	4,000	2	.60	64	21
University of Denver, Law	22,000	0	.00	12	29
Utah State Agricultural College	67,721	0	.00	5	32.5
University of Denver, Commerce	7,000	0	.00	0	36.5
Median of group	29,000	2	.60	74	19

^a Sources: records of the Bibliographical Center at Denver showing all locations for each title checked; *American Library Directory*, 1939, for number of volumes.
See footnote to Table 68 for explanation of score.

UNION CATALOGS IN THE UNITED STATES

TABLE 69—Continued

Library	Volumes	Number of Sole Locations	Per Cent of Sole Locations	Score	Rank
College and University Libraries with Less than 25,000 Volumes					
Western State College of Colorado	24,000	2	.60	121	15
Loretto Heights College	13,600	1	.30	76	19
Mesa College Library	5,713	0	.00	17	25
New Mexico Normal University	17,416	1	.30	15	27
Median of group	15,508	1	.30	46.5	22
Special Libraries					
Denison Memorial Library (Colorado General Hospital)	4,618	10	3.02	284	9
Medical Society of Denver	31,987	4	1.21	196	10
Church Historian's Office, Salt Lake City		8	2.42	149	12
Bibliographical Center, Denver		4	1.21	87	17
Colorado Springs Fine Art Center		0	.00	20	23.5
Supreme Court Library, Denver	60,715	0	.00	20	23.5
Denver Art Museum		0	.00	15	27
Wyoming Historical Library	135,000	0	.00	10	30.5
Colorado State Library	250,000	0	.00	10	30.5
Colorado Fuel and Iron Co.		0	.00	5	32.5
Colorado Grand Lodge of Masons		0	.00	3	34
Colorado State Historical Society	11,000	0	.00	0	36.5
New Mexico Historical Library		0	.00	0	36.5
School of American Research Museum, Santa Fe	6,580	0	.00	0	36.5
Median of group	31,987	0	.00	12.5	28.75
Total	2,316,920	331	100.00	11,450	38
Median of all libraries	45,940.5	1.5	.45	71	21.45

Libraries in the Denver region vary slightly in their ratings from a straight ranking by size, but the correlation is close, as in the case of those included in the Cleveland catalog. Variation is greatest among special libraries, which range in size from 4,618 to 250,000, with the smallest library of known size receiving the high score of 284. The median for all 38 libraries is 1.5 sole locations and a score of 71. Ninety of the 331 items credited to the Denver Public Library and 77 of those credited to the University of Colorado could be located in the one library only.

THE NEBRASKA UNION CATALOG

A scoring and tabulation of Nebraska libraries for locations cited during 1940 tell the same story. The libraries furnish approximately one sole loca-

tion for each 10,000 volumes. Variations again appear chiefly in special libraries. The State Library, with its more popular collection of reading materials, shows the greatest departure from a ranking by size. Eight libraries were unable to furnish any sole locations during the year, four of them small public libraries of less than 25,000 volumes, but not a single library failed to own some titles checked. There are two low scores of 10 each, while 29 is third lowest. The Beatrice Public Library, with only 24,359 volumes, ranks sixth and scores 172, as shown in Table 70.

TABLE 70

LIBRARIES INCLUDED IN NEBRASKA UNION CATALOG SCORED BY NUMBER
AND SCARCITY OF TITLES CITED IN THEM^a

<i>Library</i>	<i>Volumes</i>	<i>Number of Sole Locations</i>	<i>Per Cent of Sole Locations</i>	<i>Score</i>	<i>Rank</i>
College and University Libraries with Over 100,000 Volumes					
University of Nebraska	330,000	48	35.29	1,431	1
Public Libraries with 50,000-100,000 Volumes					
Omaha Public Lincoln City Library	205,195 142,258	24 20	17.65 14.71	925 819	2 3
Median of group	173,726.5	22	16.18	872	2.5
College and University Libraries with 25,000-50,000 Volumes					
State Teachers College, Kearney Nebraska Wesleyan University State Teachers College, Peru Union College, Lincoln Doane College	32,690 29,331 46,892 27,000 26,912	6 2 4 1 1	4.41 1.47 2.94 .74 .74	281 195 170 139 116	4 5 7 12 14.5
Median of group	29,331	2	1.47	170	7
College and University Libraries with 50,000-100,000 Volumes					
Municipal University, Omaha Creighton University	60,000 54,207	1 4	.74 2.94	163 161	8 9
Median of group	57,103.5	2.5	1.84	162	8.5
College and University Libraries with Less Than 25,000 Volumes					
State Teachers College, Wayne Hastings College Midland College	22,454 19,500 17,011	0 4 1	.00 2.94 .74	141 88 59	11 16.5 22
Median of group	19,500	1	.74	88	16.5

UNION CATALOGS IN THE UNITED STATES

TABLE 70—Continued

Library	Volumes	Number of Sole Locations	Per Cent of Sole Locations	Score	Rank
Professional and Special Libraries					
State Historical Society	130,000	6	4.41	153	10
Nebraska Public Library Commission	50,072	2	1.47	133	13
College of Medicine (University)	50,000	3	2.21	75	18.5
State Library	107,000	1	.74	75	18.5
College of Agriculture (University)	50,000	0	.00	31	28
Society of Liberal Arts (Joslyn Memorial Library)	1,358	0	.00	10	29.5
Lancaster County Medical Society	ca. 2,000	0	.00	10	29.5
Median of group	50,000	1	.74	75	18.5
Public Libraries with 10,000-25,000 Volumes					
Beatrice Public	24,359	2	1.47	172	16.5
Grand Island Public	21,629	2	1.47	116	14.5
Hastings Public	22,414	1	.74	88	16.5
Fremont Public	ca. 10,000	0	.00	63	20
Nebraska City Public	18,118	0	.00	61	21
Scottsbluff Public	20,201	1	.74	58	23
Falls City Public	19,531	0	.00	53	24
North Platte Public	12,550	1	.74	48	25
Norfolk Public	13,040	1	.74	39	26
Fairburg Public	13,447	0	.00	29	27
Median of group	18,824.5	1	.74	59.5	22
Total	1,579,169	136	100.00	5,902	30
Median of all libraries	25,635.5	1	.74	102	15.5

*Sources: records of the Nebraska Union Catalog showing libraries holding each title checked during 1940; volumes in libraries from *American Library Directory*, 1939.

Score: See footnote to Table 68. Some departmental libraries of the University of Nebraska are included with professional and special libraries.

OTHER UNION CATALOGS

Libraries represented in the Ohio Union Catalog at Columbus score very high, with a total of 38,922 for the 44 libraries and a median score of 313. Ten libraries furnished no sole locations during the year. All were small public libraries, with the exception of the Art Museum in Cincinnati.

In the Philadelphia catalog, 98 libraries furnished no sole locations for items included in inquiries made over the telephone and recorded in the sample for the six odd months of 1940. A total of 52 libraries were cited as not holding any titles not held in at least four other libraries out of the 148 included in the tabulation.

The findings included in this chapter may be summarized briefly as indi-

cating that the size of the library seems to be the major indication of the number of titles which it can contribute to a regional union catalog—as measured in terms of items actually checked. The greatest variation in ranking by size as compared with needed titles held is among special libraries and state libraries. The relatively poor showing of state libraries may be partially due to the fact that many items which could be located in these libraries were secured there without being checked with the regional union catalogs.

CHAPTER 13: *The Union Catalog in the Bibliographical Center*

ADDITIONAL SERVICES MADE POSSIBLE

IT IS THE PURPOSE OF THIS CHAPTER TO TREAT VERY BRIEFLY THE PART PLAYED by a union catalog in a bibliographical center containing many other location, subject, and trade bibliographies. The only union catalog now connected with such a fully developed center is at Denver, and has been functioning for several years, chiefly with the use of W.P.A. help. A center is in process of development at Philadelphia, but very few bibliographies have as yet been added to the collection there, and it is still largely in the formative stage. Plans for the union catalog now being established at the University of Washington in Seattle also include a bibliographical center built around this tool.

It is possible for a well-trained, alert and willing staff to perform many services other than the simple location of a given book in a library within the region, simply with the use of a union catalog, particularly one which is based upon a set of Library of Congress cards and perhaps a set of John Crerar or other printed cards. These sets usually contain a file of cross-reference cards, and include Library of Congress card and classification

TABLE 71
NON-LOCATION SERVICES PERFORMED BY THE DENVER
BIBLIOGRAPHICAL CENTER DURING
1938, 1939, AND 1940

Service	1938	1939	1940
Furnishing of bibliographical information involving use of trade bibliographies	96	583	230
Compilation of bibliographies	22	101	78
Citation of best book on a subject	8	10	1
Supplying of catalog entry other than author	11	69	1,896
Appraisal of books and magazines	268	300	277
Citation of sources for graduate study	7	12	79
Answering of reference questions (including the furnishing of library statistics)	137	399	239
Total of these services	549	1,474	2,800
Grand total of all services	1,895	5,172	8,941

numbers as well as some Dewey decimal class numbers. Subject headings and series or edition notes are also often helpful. Nevertheless, there are many bibliographical services which cannot be rendered with even this kind of catalog when used alone, no matter how adequately it is staffed. During the last three years, in addition to varied services resulting indirectly or escaping tabulation, the Denver Bibliographical Center performed the non-location services shown in Table 71, most of which no doubt required the use of other tools to supplement the union catalog.

In addition to these requests involving the use of tools other than the union catalog, many queries for location service could not be filled until the bibliographical items connected with the title requested had been corrected or completed. Correspondence and other records at the Denver Bibliographical Center show, in most instances, the amount of bibliographical information supplied with each request. In the course of this study a careful tabulation has been made of information lacking or incorrectly furnished by the borrowing library, or other patron, for each title in the sample of 1,339 items for which locations were requested of the catalog at Denver during the six months of 1940. This shows 790, or 59 per cent, of the titles as lacking at least one item of essential bibliographical information. For 36 other titles, only the subject was supplied. In 155 of the 790 cases, the author's name was omitted or incorrectly furnished. In 97 the title was lacking, very incomplete, or incorrect. Six hundred and forty-six requests lacked the place of publication, 618 the publisher, and 354 the date of issue. The total came to 1,870 items of bibliographical information which it was necessary for the staff of the Center to supply in order for the resulting interlibrary-loan requests to be complete. The fact indicates that most, if not all, of the 790 titles lacked two or more items of essential information.

Since the Union Catalog at Denver includes only author or other main entries, it was impossible for the staff there either to check the 155 requests lacking the author's name or to check the 36 subject requests, without first using other bibliographical tools. Absence of the title or of one or more imprint items often necessitated the use of trade or subject bibliographies for purposes of identification. These figures added to those for non-location services previously listed would appear to furnish abundant evidence of the value of supplementing the union catalog with other bibliographical tools in what is called a bibliographical center. The same staff members who check the union catalog for location of specific items can perform other services of a related nature occasionally, and also locate a larger percentage of titles checked, if these tools are available. Probably many such services require a more thorough knowledge of trade, subject, and "location" bibliographies and union lists than is possessed by the average reference librarian, who is also often too busy with factual or topical questions of a different

TABLE 72
TOOLS SUPPLEMENTING THE UNION CATALOG AT THE DENVER
BIBLIOGRAPHICAL CENTER

<i>Bibliographical Tools</i>	<i>Times Needed Prior to Use of Union Catalog</i>	<i>Times Showing Additional Locations</i>	<i>Times Showing Only Location Discovered</i>	<i>Times Locating Book in Region</i>	<i>Times Used Successfully for All Purposes</i>
The Union Catalog			873	691	1031
Union Lists:					
Union List of Serials (including current local list)	97	41			
Chapman's List of Regional Periodical Holdings	14	2			174
List of Serials in San Francisco Bay Region	1	4			16
Union List of International Congresses	3	1			4
Berlin Preussische Staatsbibliothek	2	1			4
Union List of Newspapers	1	1			3
Gesamtkatalog der Wiegendrucke		1			2
Total for group	118	51	57	204	
Printed Library Catalogs or Lists:					
British Museum Catalog	5				5
British Empire Society Library Catalog	2				2
Edinburgh Catalogue	2				2
Pesabody Library Catalog		2			2
Boston Public Library Bulletin		1			1
Pittsburgh Catalogue	1				1
St. Louis Public Library		1			1
U.S. Surgeon General's Catalog		1			1
Total for group	10	4			15

TABLE 72—Continued

<i>Bibliographical Tools</i>	<i>Times Needed Prior to Use of Union Catalog</i>	<i>Times Showing Additional Locations</i>	<i>Times Showing Only Location Discovered</i>	<i>Times Locating Book in Region</i>	<i>Times Used Successfully for All Purposes</i>
Trade Bibliographies:					
Cumulative Book Index and United States Catalog	167				167
English Catalogue	18				18
Publishers' Trade List Annual	6				6
Lorenz Catalogue	4				4
American Catalogue	3				3
Deutsches Bücherverzeichnis	3				3
Sabin's Dictionary of Books Relating to America	3				3
Ayer's Newspaper Directory	2				2
Kayser's Vollständiges Bücherlexikon	2				2
Norwegian Trade Bibliography	2				2
Publishers' Catalogs	2				2
Willing's Press Guide	2				2
Dealers' Catalogs	1				1
Italian National Trade Bibliography	1				1
Monthly List of State Publications	1				1
Reference Catalogue	1				1
Ulrich's Periodical Directory	1				1
U.S. Department of Agriculture Experiment Station Record	1				1
Total for group	220				220

UNION CATALOGS IN THE UNITED STATES

TABLE 72—Continued

<i>Bibliographical Tools</i>	<i>Times Needed Prior to Use of Union Catalog</i>	<i>Times Showing Additional Locations</i>	<i>Times Showing Only Location Discovered</i>	<i>Times Locating Book in Region</i>	<i>Times Used Successfully for All Purposes</i>
<i>Subject Bibliographies:</i>					
Bibliografía de la Novela Mejicana	3				3
Bibliography of Virginia History	3				3
Bulletin of Bibliography	2				2
A.L.A. Latin America	1				1
Bibliographic Index	1				1
Bibliography of Research Studies	1				1
Chemical Abstracts	1				1
Engineering Index	1				1
International Bibliography of Historical Sciences	1				1
Library Literature	1				1
Miscellaneous Bibliographies privately compiled	1				1
Total for group	16				16

TABLE 72—Continued

<i>Bibliographical Tools</i>	<i>Times Needed Prior to Use of Union Catalog</i>	<i>Times Showing Additional Locations</i>	<i>Times Showing Only Location Discovered</i>	<i>Times Locating Book in Region</i>	<i>Times Used Successfully for All Purposes</i>
Miscellaneous Sources:					
Telephone call to another library	6	2	5	8	11
U.S. Bureau of Reclamation Office			7	1	7
Letter to library specializing in field			3		5
Letter to author or publisher			3		3
Public Affairs Information Service Bulletin	3		2		3
List of American Doctoral Dissertations			2		2
Vertical File Service Catalog			1		2
American Journal of Sociology	1		1		1
A.I.A. Directory	1		1		1
Grasse's Trésor de Livres Rares et Précieux	1		1		1
Mudge's Guide to Reference Books	1		1		1
U.S. Biological Survey Office			1		1
Who's Who In America	1		1		1
Letter or call to individual specialist			1		1
Total for group	14	2	24	9	40
Grand total for all groups	250	130	952	757	1,526

nature to use these tools extensively. It would seem that all tools and functions of a bibliographical nature might well be combined in a bibliographical center.

TOOLS SUPPLEMENTING THE UNION CATALOG

A tabulation has been made of tools, other than the union catalog, used successfully by the staff of the Bibliographical Center at Denver in performing some part of the service in connection with requests received during the six sample months of 1940. The tabulation shows the number of times each tool was needed before a title could be checked with the union catalog, the number of titles for which it gave actual locations other than those cited by the union catalog, the number of instances in which it was the sole instrument locating the book, the number of times it listed a location in the region covered by the catalog, the number of items for which it gave the sole regional location discovered, and the number of times it was used successfully to serve any of these purposes. The findings are shown in Table 72.

These tools have been classified into five groups in addition to the union catalog, as follows: union lists, printed library catalogs, trade bibliographies, subject bibliographies, and miscellaneous sources. It is evident at once that the union catalog is the chief tool of the Bibliographical Center, for it was used successfully 1,031 times in connection with the 1,339 titles included in this tabulation. In 873 instances it cited the only locations obtained, and in 691 cases listed holdings within the region.

Union lists were used successfully in location service 204 times, with the *Union List of Serials* furnishing locations for 174 items. A list of regional periodical holdings compiled by E. Chapman showed libraries holding 16 titles. The *Union List of Serials in the San Francisco Bay Region* and the *Union List of International Congresses* each served in four instances. The U.S. Bureau of Reclamation Office cited locations for seven titles, and telephone calls to other libraries discovered 11. Use of other union catalogs has been omitted from this tabulation.

Trade bibliographies were used successfully to verify or complete bibliographical information for 220 titles in the group. *The Cumulative Book Index* and *United States Catalog* were responsible for 167 of these, and the *English Catalogue* for 18 more. Other items were scattered among various national trade bibliographies, periodical directories, and dealers' catalogs, with no single title used in very many instances.

One of the striking things about the entire list is that so few tools were used successfully in more than five or six cases, although a number of them were checked many more times without success. The use of trade or subject bibliographies to complete bibliographical data for 236 of these titles is some evidence of the need of such tools to supplement the union catalog.

CHAPTER 14: *Comparison of Regional and National Union Catalog Service*

THE DESIRABILITY OF CREATING REGIONAL UNION CATALOGS HAS BEEN QUESTIONED by some individuals who contend that research workers and librarians in all regions might well rely upon the Union Catalog of the Library of Congress at Washington, D.C., for the location of materials not readily available in the local public or university library of which they are members. There are several factors to be considered before accepting this contention. One is, of course, possible savings in time and expense by one method over another.

Comparative cost.—In estimating the expense of using a regional union catalog, the cost of creating and maintaining it should, of course, be taken into account. This matter has been dealt with elsewhere by Merritt.¹ New postal rates of one and one-half cents per pound for books sent anywhere in the United States now practically eliminate any difference between shipping charges on interlibrary-loan materials secured within the region and those secured at a great distance. The additional expense of requesting a location of the National Union Catalog would not be more than the difference between air mail and regular postage on a letter both ways, or six cents, except in two types of cases. If time were extremely important, a telegram to Washington from distant locations, and a similar reply, might effect a saving of one or two days but at greater expense. If time were not an important factor, regular postage to and from Washington might suffice. In the other type of case the patron or borrowing librarian might be able to use the regional union catalog direct, or by means of a local telephone call. It has already been shown in Chapter X that approximately 64.25 per cent of requests received by regional union catalogs considered in this study are made by telephone, and 13.04 per cent through personal visit, leaving only 22.71 per cent coming by mail. These statistics are surely an argument in favor of the regional union catalog.

Savings in time.—The speed with which interlibrary-loan materials may be located and secured by inquiries sent to the Denver Union Catalog and by requests sent direct to the Library of Congress or its Union Catalog has also been discussed in Chapter X, where it was shown that at least one day more

¹ Merritt, L. C., "The Administrative, Fiscal and Quantitative Aspects of the Regional Union Catalog," *op. cit.*

was required to obtain materials through the Library of Congress. Most of the loans covered by these figures were actually secured from the national library rather than from sources cited by its union catalog. If only those secured by the latter means were considered, the difference would probably be much greater.

It should also be remembered that the eight-day average required to locate materials through the Denver Center, and to obtain them, did not include direct use of the Union Catalog by individuals, except when requests were made by them through the Denver Public Library. Inclusion of all direct uses should reduce the average length of time taken by the Center to fill requests. As mentioned previously, persistence by the Center in ferreting out locations for rare or elusive materials, (often involving extensive correspondence in the process) has greatly increased the average length of time between the date of the original inquiry and the date upon which the borrowing library received the material. This persistence, however, has given the Center the best record for percentage of requests filled satisfactorily. It cited locations for 95.59 per cent of all items searched during 1940 as compared with an average of 70.23 per cent cited by the five catalogs for which figures have been secured. Bibliographical tools possessed by the Center were, of course, a great advantage to it in achieving this record.

Accessibility of locations cited.—Another factor to be considered in comparing service rendered by a national and a regional union catalog is the accessibility of locations cited. The matter is important for reasons other than the mere length of time required to secure materials, for items cited in local libraries can often be used directly with greater convenience and safety. Most titles checked by the Union Library Catalogue at Philadelphia are used in this way, and citations have frequently called the attention of the borrower to other materials in the same field owned by a lending library.

In order to discover the extent to which the Union Catalog of the Library of Congress might have furnished locations for the items checked by the Denver Union Catalog, a sample, including all titles for which locations were requested of the latter during the six alternate months of 1940 and which were listed in full in the Denver records, was taken to Washington and checked against the national Union Catalog. Results of this check are shown in Table 73.

Out of a total of 1,339 items checked, the Library of Congress Union Catalog listed libraries holding 1,216, or 90.81 per cent, as compared with 95.59 per cent for which the Center staff discovered locations by all means at its disposal. Of course, a portion of the Denver locations were discovered with tools other than the Union Catalog, and a number of the citations were to the Library of Congress. In fact, only 1,031, or 77 per cent, of the 1,339 titles, were located by the Denver Union Catalog.

A total of 757 titles were located within the Rocky Mountain region by the Denver Center, but not a single item in that region was listed by the National Union Catalog. The latter located only 81 titles, or 6.05 per cent, west of the Mississippi River, and most of these were in two or three California libraries at a considerable distance from Denver. Of the 1,339 items, a total of 1,105, or 82.52 per cent, were listed as being in the Library of Congress, though doubtless some of the titles found there are not available

TABLE 73

COMPARISON OF LOCATIONS CITED BY DENVER BIBLIOGRAPHICAL CENTER
AND THE UNION CATALOG OF THE LIBRARY OF CONGRESS

<i>Union Catalog</i>	<i>Successfully Located</i>		<i>Located Within Rocky Mountain Region</i>		<i>Located Only Outside Region</i>		<i>No Location Cited</i>	
	<i>Number</i>	<i>Per Cent</i>	<i>Number</i>	<i>Per Cent</i>	<i>Number</i>	<i>Per Cent</i>	<i>Number</i>	<i>Per Cent</i>
Bibliographical Center for Research, Denver Library of Congress Union Catalog	1,280	95.59	757	56.53	523	39.06	59	4.41
	1,216	90.81	0	.00	1216	90.81	123	9.19

for interlibrary loan. In order to secure for the National Union Catalog sufficient locations distributed throughout the various regions, it would be necessary to create regional union catalogs, requiring approximately the same expense as making these catalogs available for direct use.

The evidence then indicates that the regional union catalog results in a slight saving in time and expense and an added convenience for the borrower, because it locates material nearer at hand and more directly accessible to him. Presence of the catalog is also, no doubt, an added stimulus to research in the region.

CHAPTER 15: *Summary of Actual and Potential Services of Regional Union Catalogs Compared and Evaluated*

A BRIEF SUMMARY OF THE FINDINGS PRESENTED IN THIS STUDY SHOULD CONTRIBUTE TO AN EVALUATION OF REGIONAL UNION CATALOG SERVICES.

Volume and range.—The volume of service has been found to increase greatly and fairly steadily as each union catalog gains in age and becomes more fully developed and better publicized. The volume is much greater for the catalogs at Denver and Philadelphia, each connected with a bibliographical center possessing staff and tools for rendering a variety of services. The range in type of service is great only for these two catalogs, which have supplied bibliographical information, furthered by various means the development of library resources and activities in their regions, contributed to the efficiency and development of the national and other regional union catalogs, and rendered miscellaneous additional services. For the other catalogs, service is restricted largely to the location of specific items to be used at the holding libraries or secured as interlibrary loans.

Location services.—During the year 1940 more than 85 per cent of all uses made of the five union catalogs, for which complete figures are available, involved some type of location service, which was performed successfully in 70.23 per cent of the cases. An examination of titles checked, and a tabulation of the number of locations cited for each, indicates the inclusion of a large number of rare or seldom-used books made available through the catalogs which made it possible for librarians to borrow instead of purchase. Approximately 20 per cent of titles checked during 1940, or one out of every five, could be located in only one library. Perhaps few of these titles would have been easily or quickly found, if at all, without the aid of the regional union catalogs.

The patron library, or individual, mentioned in a small number of specific instances that a film or photostat copy of an item checked was desired. Such a photographic copy was perhaps secured in many more cases in which the book was not available for interlibrary loan, or when a loan was not satisfactory. However, accessibility of materials within the region, for use at the libraries owning them or for direct loan to individuals, particularly in the Cleveland and Philadelphia metropolitan areas, has perhaps reduced the need for copy service, while the lack of proper equipment for photo-

graphic reproduction in the cooperating libraries has rendered it impossible in many instances. The provision of more adequate equipment would increase possibilities in this field.

Interlibrary loans and research or laboratory work dependent upon them have been facilitated considerably by the citation of locations within the region for materials which would otherwise probably have been obtained only at a great distance, if at all. Of 28,688 items checked for locations during 1940 by the five most active regional union catalogs (excluding items checked for the national and other regional union catalogs), 64.03 per cent were found within the region, and another 6.20 per cent located in other areas. In a special study of interlibrary loans requested through all channels by cooperating libraries in the Rocky Mountain region during the same year, it was found that a median of eight days for all libraries was required from the time of the original request to the Bibliographical Center in Denver until the item had actually been received from a library shown to possess it. Eight days were also required in which to secure loans requested direct from the lending library, and nine days for materials requested of the Library of Congress or searched through its Union Catalog. No doubt those checked by the National Union Catalog, and then requested of a library cited, were delayed for a much longer period than those secured direct from the Library of Congress, although there were very few of the former included in the sample and no separate tabulation was made. On the other hand, if only those titles located by the Denver Union Catalog were considered, and items for which inquiries were sent by it to other union catalogs or outside sources or which required lengthy research preliminary to checking were excluded, the number of days elapsing between original request and receipt of material located through this agency would be greatly reduced.

The Denver Center also helped hasten interlibrary loans checked with the Union Catalog there by forwarding the request direct to the lending library in 87.39 per cent of the cases during the six months of the sample year. If more of the cooperating libraries would permit this service, with the use of a systematic code of instructions to the Center, a further reduction in the average length of time required to secure materials would be possible. The service is recommended to other union catalogs.

Regional union catalogs did make possible a wider and more even distribution of interlibrary loans during the year 1940 by citing locations in as many as five or more libraries for 30.65 per cent of the titles checked with them. The materials requested during the year as interlibrary loans by the 27 sample libraries in the Rocky Mountain region, as a result of citations given by the Center, were secured from 105 different libraries, with 16 receiving requests for 10 or more titles each. A more even distribution of these loans could be secured if the Union Catalog staff were permitted to

forward all requests and determine the source of the loan.

Bibliographical services.—Although the records of some union catalogs do not distinguish clearly between requests for bibliographical information and location of materials, those at Denver and Philadelphia do show a heavy use of the catalog for the former purpose. Bibliographical information was desired as an aid in ordering 230 of the 2,210 items requested of the Denver Center in 1940. In 1,902 cases, information was wanted for cataloging purposes. The file at Philadelphia has been used extensively in recataloging the collection of the Library Company of Philadelphia, and has also been used by its own staff in furnishing cataloging information for an estimated 1,700 items during the year. Lists of author entries in specific fields have been issued by this Center as an aid to catalogers and bibliographers, and its catalog has been used in the compilation of a list of Pennsylvania State headings. Potentialities are great in this field of endeavor, and as time goes on the influence upon cataloging in the region should be noticeable.

The Bibliographical Center at Denver is the only catalog center making a practice of compiling bibliographies at the request of patrons, although the Philadelphia Center plans to do so for remuneration at some time in the future. Seventy-eight bibliographies were compiled by the Denver Center during 1940, and various checklists of regional holdings in subject fields have been issued at times in the past. None of the catalogs at other centers has yet been fully organized to handle subject requests by citing locations for specific items. At Columbus there are a few subject entries for items contained in libraries specializing in given fields, e.g., "rubber" in the Akron Public Library, and "steel" in the Youngstown Public Library. An intensive study of special collections in libraries in the area has been made by the Philadelphia Center, which is also compiling a classified subject bibliography file on cards as a guide to subject lists. These, when available, can be checked with the union catalog for locations. In addition to the aids mentioned, the Center is experimenting with a partial classified subject index of the catalog, to be made with the duplicate cards which were removed when identical entries were combined. All catalogs except the one at Columbus have been used frequently by individuals to develop their own bibliographies.

Contributions to regional development.—Although a division of fields of acquisition has been agreed upon by librarians in some regions served by union catalogs, the agreement has in most cases been reached before establishment of the catalog, and this instrument has played no part in the attainment. There are plans at Cleveland and Denver, at least, for more activity in this direction. It is certainly possible to utilize the union catalog in checking subject bibliographies to reveal relative strengths in the various fields as a basis for a regional division of acquisition responsibilities. A list of valuable items included in these bibliographies and not contained in the

region could be prepared at the same time and sent to libraries specializing in the fields represented. The staff of the union catalog could also be instrumental in developing special collections in certain libraries by calling such libraries' attention to rare items in their fields, which have been requested but for which locations cannot be furnished.

Union catalogs have been used to some extent, particularly at Philadelphia, Cleveland, and Denver, in avoiding duplication of expensive and little-used items already possessed in the nearby area. Even more waste could be avoided if librarians in various regions would check all such items costing more than a given amount with their local union catalog before purchase. Those in charge of the catalogs can do a great deal to encourage this practice.

Potentialities also exist for utilization of union catalogs as bibliographical tools in cooperative purchasing arrangements. It might even be possible to use purchase orders and receipts as a means of listing additional entries or locations in the union catalog for titles as they are purchased by libraries, although considerable organizing ingenuity would be required to accomplish this end.

The Union Catalog of Libraries in Nashville, which shows specific holdings of serials in the region, has been used more than any other catalog as an aid in completing broken sets or partial files, and in arranging for a more satisfactory distribution of existing fragments. If all union catalogs showed specific holdings for serials, the potentialities in this direction would be great. The catalogs can be used in much the same way in a planned distribution of duplicates.

No regional storehouses exist in the areas served by the union catalogs included in this study. When and if they are developed, the catalogs can be used as an aid in determining which books may be sent to them, and in showing the location of materials stored.

No specific instances can be cited of a regional union catalog enabling a college or university to enlarge its curriculum on the graduate level. It is probable, however, that such curricular offerings as already existed have been more fully justified by the development of union catalogs, which made the combined library resources of the region more accessible to all students and instructors. Certainly, an extensive use of these indexes in research by graduate students and college and university instructors has been shown.

The extent to which local research has been encouraged has been difficult to measure, although there is every indication that the catalogs have had an important influence in this direction.

Contributions to national service.—Only the Philadelphia Catalogue has actually contributed titles to the Library of Congress Union Catalog, except as they have been supplied by the Denver Center in response to the weekly search lists sent out from Washington. Out of 105 trays of cards from Phila-

adelphia, checked up to February 19, 1941, 35.36 per cent of the titles were not previously listed in the National Union Catalog. The weekly search lists are sent only to the Philadelphia and Denver Centers. Of 1,583 titles included in the lists during 1940, Philadelphia cited locations for 9.10 per cent and Denver for .51 per cent. It would seem desirable to send these lists to all regional union catalogs in order to secure locations for the titles in widely scattered areas. It appears unnecessary to have the lists checked by several large libraries in a region covered by a union catalog, when one checking by the catalog would be sufficient, and perhaps show holdings in other libraries.

All of the four other major union catalogs check the lists sent out by the Denver Center, though they send few items for checking in return. It would be an additional service to their patrons if requests for items not located were sent on to the national catalog or other regional catalogs. The Cleveland Catalog was successful in citing locations for 45.43 per cent of 372 titles checked by it for other regional union catalogs during 1940.

Catalogs connected with bibliographical centers were used in performing a number of miscellaneous services, such as answering reference questions, appraising of books for librarians, booksellers, and individuals, and citing sources for use in graduate study. The accessibility and use of a large number of bibliographical tools greatly increase the possible range in type of request which can be dealt with satisfactorily.

Patrons and purposes.—Only 19.69 per cent of requests received by the five established regional union catalogs studied here were made by individuals. The remaining 80.31 per cent were presented through libraries, chiefly for their own patrons. A larger direct use by individuals is shown for the Cleveland and Philadelphia catalogs than for the others. The number of libraries and other institutions served during a sample year ranged from 44 for Nebraska to 180 for the catalog at Columbus. Most of the latter are public libraries, those at Cleveland and Denver chiefly college and university libraries, and those at Nebraska and Philadelphia fairly well balanced, with a large number of special libraries included among the Philadelphia patrons.

A major portion of requests were received over the telephone, and the next largest number by mail.

Information regarding individuals for whom requests were made of the union catalog was secured only from sample libraries in the Rocky Mountain region. A tabulation and analysis of the data available for materials requested during 10 months of 1940, August and December excluded, show the academic, miscellaneous adult, commercial, and governmental groups as making the greatest use of the catalog, in the order named. The academic group, composed of graduate and undergraduate students, teachers, and research workers in colleges and universities, requested 81.63 per cent of the

services. The miscellaneous group of adult students, club workers, authors, librarians, and others accounted for 10 per cent more; commercial laboratory workers, field researchers, and business men for 5.46 per cent; and public officials of city, state, or nation for 2.90 per cent. In an industrial area such as Philadelphia the percentage of the commercial group would no doubt be much greater.

The purposes for which these individuals used the materials involved in requests to the Denver Center, were classified, tabulated, and tested in two groups of five alternate months each by the Pearson Product-Moment method. The findings place research by college and university faculty, graduates and others, and use in vocation or business quite high, with authorship next, and adult study, hobbies, cultural and recreational uses following somewhat in the order named. As these union catalogs become more widely publicized and better developed, commercial research workers and authors not connected with academic institutions will no doubt make greater use of them.

Types and classes of materials checked.—A tabulation of dates of publication of titles included in requests received by the five catalogs during sample periods shows the far greatest demand is for recently published materials, with this demand decreasing in almost steady proportion as the material grows older. A total of 25.05 per cent of the titles requested in these samples were published during the last five years, and 6.81 per cent during 1939. Only 12.69 per cent were issued prior to 1876, the period covered by the Historical Records Survey. The median of all requests falls between 1927 and 1928. In a union catalog of limited scope it would therefore appear to be desirable to include the more recently published material first and to add new accessions as promptly as possible.

A careful classification and similar tabulation, analysis, and test, of the subjects represented by titles checked with the Cleveland, Columbus, and Denver catalogs during a period of six months in 1940 place history (including travel and biography), the other social sciences, useful arts, literature, and pure science in the upper half, and philosophy, fine arts, religion, general works, and philology in the lower half—all classes in the order mentioned here. A close agreement is found in the rank of these various subjects for the three catalogs. If we break these main classes down into their divisions, the subjects in most demand rank in the following order: geography and travels, biography, history, education, medicine, fiction, other literature, the biological sciences, psychology, philosophy, economics, and engineering. No large group, even when subdivisions of the classes are analyzed, falls sufficiently low to warrant exclusion from a union catalog serving the general public, but in a catalog which must be limited in scope, the subjects perhaps deserve inclusion in the order named.

Types of libraries holding titles checked.—Libraries included in the Cleve-

land, Columbus, Denver, Nebraska, and Philadelphia catalogs were scored according to the number and scarcity of titles cited in them, the scarcity being determined by the number of other libraries also owning the items. An analysis of the figures for Cleveland, Denver, and Nebraska failed to show any possible classification by type of library, other than by number of volumes owned, which would determine with any assurance the approximate rank an institution will earn in a rating of this sort. The extent of the contribution individual libraries can make to regional union-catalog service seems to vary in almost direct relationship to their size, with the special and state libraries departing most often from this measure. Some few smaller collections may not justify inclusion on the basis of their contributions, and many special libraries do not show any requested titles held which are not owned by at least one other library in the region. However, perhaps other considerations recommend the inclusion of all public libraries of 20,000 volumes or more and all academic libraries above the junior college.

The bibliographical center.—Records of requests answered satisfactorily by the Union Catalog in the Bibliographical Center for Research at Denver show that many additional services are possible when a catalog is adequately staffed and supplemented by location, subject, and trade bibliographies and union lists. A total of 2,800, or over 35 per cent, of the 8,941 items of service rendered by the Denver Center during 1940, would not have been possible without such tools. In addition to these services, approximately 15 per cent of the requests for locations could not be filled until the items were checked with other aids and needed bibliographical information supplied.

Tools most often used successfully to supplement the union catalog during six months of 1940 were the *Union List of Serials*, *Cumulative Book Index* and *United States Catalog*, followed by the *English Catalogue*, a local list of regional periodical holdings, the *Publishers' Trade List Annual*, *British Museum Catalog*, and telephone calls and letters to libraries, authors, and publishers. A long list of other tools, including many trade and subject bibliographies, served in fewer instances.

Regional and national union catalog service.—A special study was made of locations cited by the Denver Bibliographical Center and the Library of Congress Union Catalog for 1,339 items checked with the former during six odd months of 1940. These titles were taken to Washington and checked again with the Union Catalog there. The findings indicate that although the Library of Congress Union Catalog located a larger per cent of the titles than were located through the union catalog at Denver (90.81 per cent as compared with 77 per cent), the Bibliographical Center located a still larger number, 95.59 per cent, with the aid of all tools and means at its disposal.

The National Union Catalog also failed to show locations in libraries in the Rocky Mountain region for any of the items checked, although 757 of

the 1,339 were found there by the Center.

This and other evidence indicate a slight saving in time and expense and an added convenience for the borrower in the use of the Bibliographical Center, because it locates material nearer at hand and more directly accessible to him.

Conclusion.—In conclusion it may be stated that the findings of this study show a growing use of regional union catalogs, chiefly by college and university instructors and graduate students for the location of materials to be used in serious research, but also by librarians, commercial workers, and adult students not connected with academic institutions. History, including geography and biography, and the other social sciences are consistently the subjects most often involved in service requests, but no fields are neglected wholly. All should perhaps be represented in a regional union catalog serving the general public.

Evidence further indicates the desirability of including at least all types of academic libraries serving institutions above the junior college, and all public libraries with 20,000 volumes or more, as well as most special libraries of whatever size.

A tendency is seen to supplement the author union catalog with partial subject files, trade and subject bibliographies, and union lists in what has been termed a bibliographical center. Perhaps only by such means can the volume and range of service be increased sufficiently to justify fully the expense of developing and maintaining large regional union catalogs. The combination of a union catalog with other bibliographical tools makes possible a much greater variety of services as well as more complete and effective location service. It is well exemplified in the Bibliographical Center for Research at Denver and in plans for development at Philadelphia. Such centers, well distributed in a chain throughout the United States, might not only serve their local regions and cooperate with one another in various ways, but could also supplement the National Union Catalog and act as feeders for it in a carefully coordinated system, making available to any scholar the entire resources of the nation.

PART THREE

The National Union Catalog
in the Library of Congress

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CHAPTER 16: *General History*

THE LAST DECADE OF THE NINETEENTH CENTURY WAS A PORTENTOUS PERIOD of transition in the American library profession. It was marked by the general adoption of the card catalog system in place of book catalogs, and the recognition by librarians of their essential dependence upon some form of cooperative cataloging, as well as their need for a general interlibrary loan system because it was apparent that no single library could hope to acquire all the books in all fields of learning.

The need for multiple copies of catalog entries to meet the requirements of dictionary catalogs influenced several libraries shortly before 1900 to print their catalog cards. The Library of Congress, after a brief period of experimentation in this field, began in 1901 to distribute its printed cards on a nationwide basis.

The foundation of the National Union Catalog was laid in this year, when the Librarian of Congress, perceiving the value of a national finding list of books, authorized the exchange of Library of Congress printed cards for cards being printed by other American libraries. The purpose of these arrangements he reported as follows: "This system of exchange being extended and the other Government libraries also being brought into it, there may result in each local center of research throughout the United States a catalogue of the national collections at Washington, and a statement at Washington of every book of interest to investigators to be found in the important great collections outside of Washington."¹

The pioneer contributors to this project were the Boston Public Library, the Harvard College Library, the John Crerar Library and the New York Public Library.

Within a short time, the Library of Congress made agreements with several government libraries to print catalog cards from copy prepared by them for their current accessions, excluding, of course, books which were also in the Library of Congress. Copies of these "outside library" entries were added to the Union Catalog along with cards received through the exchange agreements.

¹ U.S. Library of Congress, *Report of the Librarian of Congress, 1901* (Washington: Government Printing Office, 1901), p.30.

Thus, by 1909, in addition to those from the original contributors, the Union Catalog included cards representing books to be found in such U.S. Government libraries as the Bureau of Education, the Department of Agriculture, the Geological Survey, and the Military Information Division of the War Department, as well as in the Washington Public Library. Subsequently, as other institutions began to duplicate cards, notably the University of Illinois, the University of Chicago, and Newberry Library, they too were brought into the exchange agreement. It is noteworthy that by way of prophecy the Chief of the Card Section wrote in his report for 1909: "The catalogue when completed will contain about 600,000 entries. Taken with the present accumulation of between 600,000 and 700,000 entries in the public catalogues of the Library of Congress, it will constitute the closest approximation now available to a complete record of books in American libraries."²

From the beginning in 1901, through the year 1926, the Union Catalog was maintained as an adjunct of the Card Division. No attempt was made to revise main entries or to avoid duplication, since variations in form of entry were considered of interest to the Catalogue Division, and the percentage of duplication was found to be surprisingly small. Less than seven per cent of the titles were in two libraries, while only a fraction of one per cent were in three or more libraries. (In 1939, a similar test showed that 13 per cent of the titles in the Union Catalog were located in two libraries, while two per cent were located in three or more libraries.) By 1926, there had been filed into the Union Catalog 1,960,000 cards, not including cards printed by the Library of Congress for its holdings.

Although by 1926 the Union Catalog had grown to three times the size predicted for it in 1909, its resources, coupled with those of the smaller union catalogs in several other libraries, were woefully inadequate to serve the needs of American scholarship. During this period, the estimate for the number of research titles in American libraries had been revised from 1,300,000 to 8,000,000. This revised estimate of books which might be needed at any time indicated the hopeless situation that confronted any single library attempting to serve all the needs of American scholarship. This situation, emphasized by the rapid development of graduate study and scientific investigation which accompanied World War I, made the problem of locating a research book outside the local library a costly and exasperating one to the investigator and library reference staff alike. By 1926, the problem of locating a needed book had assumed such serious proportions that demands for a comprehensive national union catalog and information service came from many directions. The most plausible method suggested was the extension of

² U.S. Library of Congress, *Report of the Librarian of Congress, 1909* (Washington: Government Printing Office, 1909), p.59.

the Library of Congress Union Catalog as rapidly as possible, to locate at least one copy of every important reference book in American libraries.

Fortunately for American scholarship, the means for developing such a finding list became available from Mr. John D. Rockefeller, Jr., in the form of a gift of \$250,000 to be administered as Project "B" of the Library of Congress during the five-year period, 1927 to 1932.

Two major undertakings were contemplated under Project "B": the increase of the record on cards of the contents of American libraries possessing material important to research, and the compilation of a card index of special collections in American libraries.

Dr. Ernest Cushing Richardson, then Consultant in Bibliography and Research at the Library of Congress, was appointed general director of the Project. Dr. Richardson brought to this work his many years of experience as librarian, scholar, bibliographer and teacher. He had long been a proponent of closer library cooperation, and had taken an active part in the quest for the financial assistance necessary for speedy expansion of the Union Catalog.

Mr. Ernest Kletsch, a former member of the Library staff, was called from his private business to become Curator of the Union Catalog, while Dr. William Dawson Johnston was made Director of Records of Special Collections. Dr. Johnston's services to the project were soon terminated, by reason of his death in 1928.

At the time of the expiration of Mr. Rockefeller's grant on August 31, 1932, the Union Catalog of printed books in American libraries located by author or title entry 8,344,256 copies of 6,775,936 works—an increase during the five-year period of more than 6,300,000 cards, while the Index to Special Collections in American libraries described and located 4,884 collections.³ In addition, there had been turned over to the Library of Congress supplementary catalogs of books in foreign libraries, a group of published card bibliographies, and miscellaneous groups of bibliographical data. Also under Project "B," operations included extensive studies in the general field of library cooperation, cooperative book purchase, etc.

The end of Project "B" marked the beginning of a new era in the history of the National Union Catalog, for it then became a formal part of the Library of Congress and began to function under funds provided by Congress "to continue the development and maintenance of the Union Catalogs." Coincident with the termination of the Rockefeller grant, Mr. Kletsch was appointed Director of this new division of the Library, a position which he held until his untimely death on January 18, 1937, when the present Director succeeded him; while Dr. Richardson returned to his former post as Con-

³ U.S. Library of Congress, *Report of the Librarian of Congress, 1932* (Washington: Government Printing Office, 1932), p.75.

tant in Bibliography and Research.

Since 1932, the growth of the Union Catalog has been pushed to the limit possible under a reduced budget which rarely has exceeded one half the annual allotment formerly available under the Rockefeller gift. Its present activities are restricted to the performance of the following basic services: the expansion of the Union Catalog as a finding list of Library of Congress holdings; its development as a Union Catalog of books in other American libraries; and the rendering of the fullest possible aid to investigators and libraries in the matter of locating research books or in making available to them the vast amount of bibliographical data which is contained in the Union Catalog. Further activity in the general field of library cooperation must be deferred until enabling funds are provided.

By June 30, 1941, the main record of the Union Catalog had been increased to 11,156,211 cards.

CHAPTER 17: *Project "B"—Administrative Problems*

THE ADMINISTRATIVE OFFICERS OF PROJECT "B" WERE IMMEDIATELY FACED with the necessity of providing rules for the filing, identification, and editing of cards to be added to the Union Catalog, and for the disposition of cards containing Slavic, Semitic and other non-Roman alphabet characters.

As to the policy adopted regarding duplicate and conflicting entries, it was decided that duplicates should be weeded out insofar as was practicable, without destroying information deemed to be of bibliographic value. It became the rule to retain the best entry along with any other which bore special information not found on the master card, and all other entries were to be discarded after the symbols for holding libraries had been indicated on the master card. In instances of duplicates or of a conflict between forms of entry, the Library of Congress card was to be considered the master card; in the absence of an L.C. card, the fullest entry, preferably printed, was to be considered the master card.

The next problem to be solved was the selection of a system of symbols for the identification of libraries, which would be flexible and capable of indefinite expansion according to a predetermined formula, and yet remain a system of symbols in which each symbol would designate one library and only one.

The lack of a standard list of symbols was keenly felt by all who had used the older union lists and bibliographies, including the monumental works of Charles Evans and Joseph Sabin. An examination of the library abbreviations which had been used in these lists disclosed that most of them had been designed especially for use in the publication in hand, and were incapable of expansion without the occurrence of conflicts and ambiguities.

The one scheme of symbols which appeared to have capabilities of expansion, necessary for a catalog which might eventually include entries from nearly every library in the United States, was that advanced by Mr. Frank Peterson.¹ This scheme, combining brevity and the geographic idea with the quality of being mnemonic, was forthwith adopted by Project "B". Characteristically, each symbol is made of three letters or three groups of

¹ M. G. Wyer, "Standardized Abbreviations for the Names of Libraries," *Library Journal*, LII (1927), 802-06.

letters, which cover the following elements in the order given: state, city and library. For example, the symbol ICJ represents the John Crerar Library, Chicago, Illinois, while MdChW represents the Washington College Library, Chestertown, Maryland.

The choice of Mr. Peterson's scheme for use in assigning symbols for American libraries contributing to the Union Catalog found its justification during the past three years when some 12,000 symbols were assigned by the Union Catalog for the use of the American Imprints Inventory. It should be observed that although the same basic scheme has been employed by the editor of *Union List of Serials*, the symbols used in that publication do not always agree with those used by the Union Catalog, for the reason that the Union Catalog interpretation must be much broader.

Because it was anticipated that the Union Catalog would be a larger catalog than any in existence, the matter of selecting an adequate code for the filing of titles in it caused grave concern. Available filing rules intended for a dictionary catalog did not allow for the complexities inherent in an author catalog of such enormous size, composed of the products of several hundred library cataloging departments which were not obliged to use the same cataloging code. Neither was the basic scheme then in use by the Union Catalog, that of filing by author and title, wholly adequate.

The fundamental difference in use between a dictionary catalog and a union finding list is that the majority of persons who consult a dictionary catalog do so to discover which books are available on a given subject, whereas the majority of users of an author-entry union catalog already know what books they wish to read and are seeking to discover the physical location of them. With these facts in mind, an adequate yet simple and flexible filing code was adopted. Emphasis was placed on strict alphabetical arrangement of the cards by author, and their further arrangement alphabetically by title under each author, except in cases in which particular groups of entries lent themselves advantageously to chronological, lingual, or other arrangement. The main deviations from conventional filing practices involved:

- (1) The use of the chronological order in filing long runs of cards representing numerous editions of the same work; the works of classical authors without regard for title; entries for official documents, etc.
- (2) The arrangement of special groups by language, subarranged chronologically or alphabetically by title
- (3) The arrangement of certain other groups according to schemes employed by the British Museum Catalog, Jaggard's Shakespeare bibliography, etc.

The problem of filing cards representing Slavic and Semitic titles was solved by the simple expedient of transferring all such cards to the Slavic and Semitic Divisions of the Library of Congress, respectively, where in each

case competent linguists could handle the cards and where most use would be made of them.

(On July 1, 1941, the Slavic Union Catalog contained some 55,000 entries from various American libraries, while there were approximately 10,500 in the Semitic Union Catalog. Aside from Library of Congress entries, the overwhelming majority of the cards in the latter represent holdings of the New York Public Library.)

PROJECT "B"—COMPILED

As has been indicated, the growth of the Union Catalog during the period preceding Project "B" was dependent entirely upon the functioning of card exchange agreements with the relatively few libraries which printed their own cards. In the absence of a program based on legal compulsion, such as that available to the compilers of the *Gesamtkatalog*, it was obvious that the main source of future additions to the Union Catalog must be through the expansion of the existing system of voluntary contributions. It was equally obvious that by this system it would be impossible to obtain complete representation of the book resources of all American libraries. Accepting this as inevitable, the administration of Project "B" set as the ultimate goal of the Union Catalog the location in this country of at least one copy of every book useful for research.

Large contributions could not be expected from libraries, regardless of their enthusiasm for the project, if their contributions would result in heavy burdens on their time and finances. Consequently, the following methods of participation were developed with a view to procuring the largest number of important entries with the minimum of cost:

- (1) Routine contributions of all cards by those libraries which duplicated their entries by mechanical means.
- (2) Contributions by some libraries of copies of special shelf-list cards representing their "Treasure Room" items.
- (3) The loan by cooperating libraries of their catalogs of special collections for a period of time sufficient to transcribe the entries.
- (4) The gift of large groups of cards discarded in the process of recataloging or for other reasons. Many such cards were received from Harvard University, the University of California, Lehigh University, Princeton University, and Emory University.
- (5) Clipping and mounting entries from printed book catalogs.

With libraries in the District of Columbia easily accessible, staff members were sent temporarily to five of them for the purpose of copying entries from their shelf lists or public catalogs. At the libraries of American University, the Smithsonian Institution, the Washington Cathedral, and the Catholic University of America (Hyvernat and Lima Collections), entries were typed,

while photostat copies of some 30,000 titles were made from the catalog of the Pan-American Union Library.

Direct copying of cards in distant libraries involved problems of additional expense, direction, and supervision; consequently, projects of that character were not general. A few such undertakings were carried on, but as Dr. Richardson reported, they were "limited . . . to certain libraries which have furnished a large amount of free cooperation and which offer special facilities for getting additional titles economically."²

The main work in this field was undertaken at Harvard University where a staff was engaged for three years to copy cards from the union catalog of that library. The results of this project (734,678 cards), when added to earlier contributions from Harvard of all its printed cards and selected titles clipped and mounted from its printed accessions lists, gave the Union Catalog, in 1932, almost complete representation of the Harvard Library collections.

A similar project was established at Princeton University but was limited to checking its accessions catalog for titles received after 1920, and copying the titles chosen, since over 240,000 Princeton entries, comprising the printer's copy on library cards for its published *Alphabetical Finding List, 1920-1921*, had already been filed into the Union Catalog.

Another phase of the field work, and one of primary importance, was the visiting of libraries by members of the Washington staff. These visits were made by the Director, the Curator, and the Director of Special Collections for the purpose of studying the materials and catalogs of the libraries visited, and for procuring their cooperation in contributing card entries.

While work in the field was being organized, and pending the influx of new or increased contributions, the attention of the home staff was turned to the inclusion of entries for large groups of materials immediately at hand, representing holdings of the Library of Congress itself. From this source came the largest increase in the Union Catalog during the initial year of the Project.

A depository set of the Library of Congress printed cards was drawn and filed into the Union Catalog. This set not only added to the total number of locations but also served as an excellent bibliographic tool and guide for filing and editing cards supplied by other libraries. Eight hundred and sixty-eight thousand temporary entries, including all manuscript entries and cross references in the public catalog, the various deck lists, the old official catalog and miscellaneous catalogs, were copied by typists and added. Then hitherto uncataloged foreign dissertations numbering 197,269 were listed by author and title by the Project staff and incorporated into the Union Catalog.

From the printed sources at hand, which included catalogs of many American libraries, catalogs of special collections, and descriptive accounts con-

² U.S. Library of Congress, *Report of the Librarian of Congress, 1928* (Washington: Government Printing Office, 1928), p.245.

taining select lists of valuable accessions, those which were most likely to furnish new additions were selected, searched to prevent duplication, and the entries typed on cards.

Besides checking titles appearing in printed library catalogs against the Union Catalog, the Project developed a technique for clipping and mounting on cards the entries from all such catalogs which were deemed of sufficient importance to be included in their entirety. Begun as an experiment in 1927, this method had become by 1931 the main source of increase for that year. Galley and page proofs also were used for this purpose whenever obtainable, to eliminate the necessity of procuring two copies of the bound catalogs.

A complete enumeration of all the book catalogs and lists which were incorporated in the Union Catalog up to August 31, 1932, totaling 1,277,497 entries, follows:

- American antiquarian society, Worcester, Mass. Library. *A catalogue of books in the library . . . Worcester, [1836]–37.* v.p.
—*A list of early American imprints . . . Worcester, 1896.* 8op.
- American oriental society. Library. *Catalogue of the library of the American oriental society . . . New Haven, Conn., 1930.* 308p. In Yale University library.
- Bartlett, Henrietta Collins. *A census of Shakespeare's plays in quarto . . . New Haven, 1916.* 153p.
—*Mr. William Shakespeare, original and early editions . . . New Haven, 1922.* 217p.
- Bender, Harold Stauffer. *Two centuries of American Mennonite literature . . . Goshen, Ind., 1929.* 181p.
- Benton, Josiah Henry. *The Book of common prayer . . . 2d ed. . . . Boston, 1914.* 142p.
- Boston. Public library. Barton collection. *Catalogue of the works of William Shakespeare . . . [Boston] 1880.* 227p.
- Boston athenæum. *A catalogue of the Washington collection . . . [Camb.] 1897.* 566p.
—*Confederate literature; a list of books and newspapers . . . [Boston] 1917.* 213p.
- Bowdoin college. Library. *A catalogue of the library of Bowdoin college . . . Brunswick [Me.] 1863.* 832p.
- Brown university. Library. *The Anthony memorial. A catalogue of the Harris collection . . . Providence, 1886.* 320p.
—*A catalogue of the Napoleon collection . . . Providence, 1922.* 77p.
- Brown university. John Carter Brown library. *Bibliotheca americana. Catalogue of the John Carter Brown library . . . Providence, 1919–31.* 3v.
—*Books printed in Lima, 1585–1800. [1908]* 4p.
- California. University. Library. *Spain and Spanish America in the libraries of the University of California . . . Berkeley, 1928–30.* 2v.

- California. University. Library. Weinhold library. . . . *A list of first editions and other rare books* . . . Berkeley, 1907. 143p.
- Cambridge, Mass. Public library. *List of books in the Cambridge public library relating to the Pilgrim fathers* . . . [Camb., 1920] 16p. -
- Catholic university of America. Library. *The Michael Jenkins collection of works on the history of Maryland*. Washington, 1913. 28p.
- Columbia university. Library. *Material by and about Edgar Allan Poe to be found in the Library of Columbia university* . . . [New York] 1909. 18p.
- Montgomery library of accountancy. . . . *A second check list of books, printed before 1850 . . . library of accountancy* . . . New York, 1930. 32p.
- Cornell university. Library. . . . *Catalogue of Runic literature, forming a part of the Icelandic collection* . . . London, New York, etc., 1918. 105p.
- . . . *Catalogue of the Dante collection presented by Willard Fiske* . . . Ithaca, N.Y., 1898-1900.
- . . . *Additions, 1898-1920* . . . Ithaca, N.Y., 1921. 152p.
- . . . *Catalogue of the Icelandic collection* . . . Ithaca, N.Y., [Norwood, Mass.] 1914. 755p.
- . . . *Catalogue of the Petrarch collection* . . . London, New York, [etc.] 1916. 547p.
- . . . *Catalogue of the Rhaeto-Romanic collection presented to the library* . . . Ithaca, N.Y., 1894. 32p.
- The Schuyler collection*. [In: Cornell univ. Library. Libr. bull., Ithaca, 1886. p.301-15.]
- Works relating to mathematics* . . . [In: its Libr. bull. Ithaca, 1886.]
- President White library. . . . *Catalogue of the historical library* . . . Ithaca, N.Y., 1889-94. 2v. in 1.
- Cross, Wilbur Lucius. *The history of Henry Fielding* . . . New Haven, 1918. Bibl. v.3.
- Dover, N.H. Public library. . . . *A list of books and pamphlets in the Dover public library* . . . Dover, N.H., 1903. 172p.
- Essex institute, Salem, Mass. *Oriental numismatics; a catalogue* . . . Salem, Mass., 1913. 102p.
- Library. *Catalogue of books on China in the Essex institute* . . . Salem, Mass., 1926. 392p.
- Field museum of natural history, Chicago. E. E. Ayer, Ornith., libr. . . . *Catalogue of the . . . library* . . . Chicago, 1926. 2v.
- Gerould, James Thayer. . . . *Sources of English history of the seventeenth century* . . . Minneapolis, 1921. 565p.
- Grand Rapids. Public library. . . . *List of books on furniture* . . . [Grand Rapids] 1927. 142p.
- Grosvenor library, Buffalo, N.Y. *Catalogue of poetry in the English language, in the Grosvenor library*. [Buffalo] 1902. 123p.
- Guild, Edward Chipman. . . . *A classified list of the German dialect collection* . . . Brunswick, Me., 1898. [329]-348p. In Bowdoin college library.

- Harvard University. Library. *Catalogue de la bibliothèque de M. Fernando Palha*. Lisbonne, 1896. 4v.
- Harvard university bulletin*. Ed. by Justin Winsor; v.1-7, no.1-58; 1875-94. Cambridge, 1879-94. 7v.
- Hellersberg, firm, booksellers, Berlin. *Hegel und die Hegelianer; eine bibliothek*. Charlottenburg, [1927?] 39p. In New York univ. Washington Square library.
- Henry E. Huntington library and art gallery, San Marino, Calif. *Confederate imprints in the Henry E. Huntington library . . .* Chicago, 1930. 18-109p.
- Incunabula medica in the Huntington library . . .* [Cambridge, 1931] p.[107]-151.
- Hispanic society of America. Library. *List of books printed before 1601 in the library of the Hispanic society of America . . .* New York, 1929. 274p.
- List of printed books in the library of the Hispanic society of America*. New York, 1910. 20v.
- Holland society of New York. Library. *Catalogue of the works of Grotius and of books relating to him . . .* [New York, 1890?] 7-28p.
- Hough, Franklin Benjamin. *Bibliographical list of books and pamphlets containing eulogies . . .* Albany, 1865. 59p.
- Humphrey, Constance Helen. *Check-list of New Jersey imprints . . .* [In: The Papers of the Bibl. Soc. of Amer. . . . Chicago, 1931].
- Illinois. State library, Springfield. *Dictionary catalogue of the Illinois state library . . .* Danville, Ill., 1912. 814p.
- Indiana. University. Library. "List of titles in the university library on C. Plinius Caecilius Secundus." Typewritten, Dec., 1930.
- "List of titles in the university library on Titus Livius." Typewritten, Dec., 1930.
- Jaggard, William. *Shakespeare bibliography . . .* Stratford-on-Avon, 1911. 729p.
- John Crerar library, Chicago. . . . *A list of books, pamphlets, and articles on cremation . . .* Chicago, 1918. 52p.
- . . . *A selected list of books on military medicine and surgery . . .* Chicago, 1917. 58p.
- Lawson McGhee library, Knoxville, Tenn. *Calvin Morgan McClung historical collection of books . . .* Knoxville, Tenn., 1921. 192p.
- Leland Stanford junior university. Library. *Australiana in Leland Stanford junior university . . .* [Stanford University, 1901?] 172p.
- *Finely printed books presented to the Library . . .* Stanford University, 1927. 3-33p.
- Hoover war library. "Accessions of general interest added to the . . . library." (A mimeographed list issued monthly.)
- . . . *A catalogue of Paris peace conference delegation propaganda . . .* Stanford University, 1926. 96p.
- McConnell, Winona. *California Indians*. (Annotated list . . .) [Sacramento, 1915] [485]-523p.

- McMurtrie, Douglas Crawford. *The beginnings of printing in Utah . . .* Chicago, 1931. 9-91p.
- . *Early printing in Michigan . . .* Chicago, 1931. 351p.
- . *Early printing in New Orleans . . .* New Orleans, 1929. 11-151p.
- . *Early printing in Wisconsin . . .* Seattle, Wash., 1931. 220p.
- . *The history of early printing in New Mexico . . . [In: New Mexico Hist. Rev., 1929, v.4, no.4, p.384-410.]*
- . *Jotham Meeker, pioneer printer of Kansas . . .* Chicago, 1930. 9-169p.
- Massachusetts horticultural society. Library. *Catalogue of the library of the Massachusetts horticultural society . . .* Cambridge, 1918-20. 372p.
- Michigan. University. Library. . . . *A catalogue of the Dr. S. A. Jones Carlyle collection . . .* Ann Arbor, 1919. 119p.
- Michigan University. William Clements library. *Uncommon, scarce and rare books relating to American history . . .* [n. p.] 1914. 41p.
- Morrison, Hugh Alexander. . . . *Preliminary check list of American almanacs, 1639-1800 . . .* Washington, 1907. 160p.
- Mott, Frank Luther. *Literature of pioneer life in Iowa . . .* Iowa City, 1923. 89p.
- New Bedford, Mass. Free public library. *The William L. Sayer collection of books and pamphlets . . .* New Bedford, Mass., 1914-20. 2v.
- New Hampshire. State library, Concord. *Author list of the New Hampshire state library . . .* Manchester, N.H., 1904. 2v.
- New York. Public library. *Washington eulogies; a checklist of eulogies and funeral orations . . .* [New York] 1916. 68p.
- New York. Public library. Astor library. *Catalogue or alphabetical index of the Astor library . . .* New York, 1857-66. 5v.
- . *Catalogue of the Astor library (continuation). Authors and books . . .* Cambridge [Mass.] 1886-88. 4v.
- New York state library, Albany. Law library. *Some rare and interesting law books in the New York state library . . .* Albany, 1922. p.82-103.
- New York. Union theological seminary. Library. . . . *Catalogue of the McAlpin collection of British history and theology . . .* New York, 1927-30. 5v.
- Newberry library, Chicago. *Check list of American revolutionary war pamphlets . . .* Chicago, 1922. 115p.
- . . . *Check list of books printed in English before 1641 . . .* Chicago, 1923. 198p.
- . . . *Philosophy; metaphysics, psychology, ethics.* Chicago, [1922]. 258p.
- . . . *Religions; philosophy of religion . . .* Chicago, [1925]. 237p.
- . . . E. E. Ayer collection. *Narratives of captivity among the Indians of North America . . .* Chicago, [1912]. 120p.
- North Carolina. State library, Raleigh. *A bibliography of North Carolina; . . .* [In: its Biennial Report . . .] Raleigh, 1919]
- Noyes, Reginald Webb. *A bibliography of Maine imprints to 1820 . . .* Stonington, Me., 1930. 22p.
- Peabody institute, Baltimore. *Catalogue of the library of the Peabody institute of the city of Baltimore . . .* Baltimore, 1883-92. 5v.

- *Second catalogue of the library of the Peabody institute . . . Baltimore, 1896–1905.* 8v.
- Pennsylvania. University. Univ. museum. Library. *Catalogue of the Berendt linguistic collection . . . [Philadelphia]* 1900. 32p.
- Preliminary check-list of Floridiana, 1500–1865, in the libraries of Florida . . .* [In: *Flor. Libr. bull.*, v.2., no.2, 1930]
- Princeton university. Library. . . . *Alphabetical finding list . . . Princeton, N.J., 1921.* 5v.
- St. Louis. Missouri botanical garden. Library. *The Sturtevant Prelinnean library . . . St. Louis, 1896.* p.123–209.
- *Supplementary catalogue of the Sturtevant Prelinnean library . . . St. Louis, 1903.* p.233–316.
- Seattle. Public library. *List of books on aeronautics in the Seattle Public library.* [Seattle, 1931]. 6op.
- Smith, Charles Wesley. *Pacific northwest Americana . . . ed. 2., rev. . . . London, 1921.* 329p.
- South Carolina. University. Library. *Author list of Caroliniana in the University of South Carolina . . . Columbia, 1923.* [9]–337p. [Bulletin of Univ. of S.C., no.134.]
- Sparks, Jared. *Catalogue of the library of Jared Sparks . . . Cambridge, 1871.* 230p.
- Texas. University. Library. John Henry Wrenn library. *A catalogue of the library of the late John Henry Wrenn . . . Austin, 1920.* 5v.
- Transylvania college, Lexington, Ky. Library. . . . *The Transylvania library, founded in 1784.* Lexington, Ky. [1919]. 51p.
- Tulane University of Louisiana. New Orleans. Dept. of Middle American research. . . . *Rare Americana . . . New Orleans, 1932.* 25p.
- A Union catalogue of photo facsimiles in North American libraries, material so far received by the Library of Congress . . . Yardley, Pa., 1929.* 51 numb. 1.
- U.S. Library of Congress. Copyright office. . . . *Dramatic compositions copyrighted in the United States, 1870 to 1916 . . . Washington, 1918.* 2v.
- U.S. Library of Congress. Division of maps . . . *A list of geographical atlases in the Library of Congress . . . Washington, 1909–20.* 4v.
- U.S. Library of Congress. John Boyd Thacher collection. *The collection of John Boyd Thacher in the Library of Congress . . . Washington, 1931.* 3v.
- U.S. Military Academy, West Point. Library. *Catalogue of the Library, U.S. Military academy, West Point, N.Y., 1873 . . . Newburgh, N.Y., 1876.* 723p.
- U.S. Surgeon-general's office. Library. *Index-catalogue of the library of the Surgeon-general's office . . . Washington, 1880–95.* 16v.
- 2d ser. Washington, 1896–1916. 21v.
- 3d ser. Washington, 1918–[1931]. 9v.
- Vassar college. Library. *A list of rare books, manuscripts, and autographs in Vassar college library . . . Poughkeepsie, N.Y., 1917.* 38p.
- Virginia. State library, Richmond. . . . *A bibliography of Virginia . . . Richmond, 1916–*

- Virginia. University. Library. "Accessions lists from November, 1927, to October, 1932." Monthly lists, mimeographed.
- . *The Byrd library; a collection of Virginiana . . .* Charlottesville, Va., 1914. 45p.
- Wellesley college. Library. *A catalogue of early and rare editions of English poetry . . .* Boston and New York, 1923. 613p.
- . Plimpton collection. *Catalogue of the Frances Taylor Pearson's Plimpton collection . . .* Cambridge, 1929. 434p.
- Wesleyan college. Candler Memorial library, Macon, Georgia. "List of Southern and Georgia material . . . August, 1931." Typewritten list.
- Wymberley Jones De Renne Georgia Library. Wormsloe. *Catalogue of the . . . library, at Wormsloe . . .* Wormsloe, 1931. 3v.
- Yale university. Elizabethan club. *The book of the Yale Elizabethan club, MDCCCCXII [New Haven, 1912].* 46p.
- Yale university. Library. *A catalogue of the Altschul collection of George Meredith . . .* [Boston] 1931. 195p.
- Zion research library. *Catalogue of the Zion research library, Brookline, Mass. Boston, 1930.* 169p.

During the period between September 1, 1932 and September 1, 1941, nearly 150,000 entries from the following additional published catalogs were clipped and mounted or checked into the Union Catalog:

- Acadia university, Wolfville, N.S. Library. *A catalogue of the Eric R. Dennis collection of Canadiana . . .* Wolfville, N.S., 1938. 212p.
- Boston college, Boston, Mass. Library. *Catalogue of books, manuscripts, etc., in the Carribean section (specializing in Jamaicana) of the Nicholas M. Williams memorial ethnological collection.* Chestnut Hill, Mass., 1932. 133p.
- Chapin, Howard Millar. . . . *The Peter Chapin collection of books on dogs.* Williamsburg, Virginia, 1938. 131p.
- Colby college, Waterville, Me. Library. *Hardy at Colby . . .* Waterville, Me., 1936. 152p.
- Cooley, Elizabeth Frances. *Vermont imprints before 1800 . . .* Montpelier, Vt., c1937. 133p.
- Evans, Charles. *American bibliography, by Charles Evans.* Chicago, Priv. print. for the author, 1903-34. 12v.
- Fisher, Samuel Herbert. *The publications of Thomas Collier, printer, 1784-1808.* Litchfield, 1933. 98p.
- Harvard university. Graduate school of business administration. Baker library. Kress library of business and economics. *The Kress library of business and economics. Catalogue, covering material published through 1776 . . .* Boston [1940], 414p.
- Henry E. Huntington library and art gallery, San Marino, Calif. . . . *Huntington library supplement to the record of its books in the Short title catalogue of English books, 1475-1640 . . .* [In: Huntington library bulletin. Cambridge, Mass., 1933. 151p.]

- *Sporting books in the Huntington library*. San Marino, Calif., 1937. 132p.
- Historical records survey. . . . *Check list of Alabama imprints, 1807–1840*. Birmingham, Ala., 1939. 159p.
- . . . *A check list of Arizona imprints, 1860–1890*. Chicago, 1938. 81p.
- . . . *Check list of Chicago ante-fire imprints, 1851–1871*. Chicago, 1938. 727p.
- . . . *A check list of Idaho imprints, 1839–1890*. Chicago, 1940. 74 num. leaves.
- . . . *A check list of Iowa imprints, 1838–1860* . . . Chicago, 1940. 84p.
- . . . *Check list of Kansas imprints, 1854–1876*. Topeka, Kan., 1939. 773p.
- . . . *A check list of Nevada imprints, 1859–1890*. Chicago, 1939. 127 num. leaves.
- . . . *A check list of West Virginia imprints, 1791–1830*. Chicago, 1940. 62p.
- . . . *A preliminary check list of Missouri imprints, 1808–1850*. Washington, 1937. 225p.
- James, Eldon Revare. *A list of legal treatises printed in the British colonies and the American states before 1801*. [Cambridge, Mass., 1934] p.[159]–211.
- Johnson, Thomas Herbert. *The printed writings of Jonathan Edwards, 1703–1758, a bibliography* . . . Princeton; London, 1940. 135p.
- McMurtrie, Douglas Crawford. *A bibliography of books and pamphlets printed at Geneva, N. Y., 1800–1850*. Buffalo, 1935. [1] 82–112p.
- *A bibliography of books, pamphlets and broadsides printed at Auburn, N. Y., 1810–1850*. Buffalo, 1938. [69]–152p.
- *A bibliography of books, pamphlets and broadsides printed at Canandaigua, New York, 1799–1850*. Buffalo, 1939. [61]–107p.
- *A bibliography of Morristown imprints, 1798–1820* . . . Newark, N.J., 1936. 31p.
- *A bibliography of South Carolina imprints, 1731–1740*. Charleston, 1933. 23p.
- . . . *Check list of Kentucky imprints, 1787–1810*. Louisville, 1939. 205p.
- . . . *Check list of Kentucky imprints, 1811–1820* . . . Louisville, 1939. 235p.
- . . . *A check list of the imprints of Sag Harbor, L. I., 1791–1820*. Chicago, 1939. 61p.
- *Early Missouri book and pamphlet imprints. 1808–1830*. (In: *American book collector*, v.1, nos.2, 3, 4, Feb.-Apr., 1932.)
- *The first printers of Chicago, with a bibliography of the issues of the Chicago press, 1836–1850*. Chicago, 1927. 42p.
- *The first twelve years of printing in North Carolina* . . . Raleigh, 1933. 23p.
- *Indiana imprints, 1804–1849; a supplement to Mary Alden Walker's "Beginnings of printing in the state of Indiana"* . . . Indianapolis, 1937. 307–93p.
- *Montana imprints, 1864–1880*. Chicago, 1937. 82p.
- *A short-title list of books, pamphlets and broadsides printed in Mississippi, 1811 to 1830* . . . Chicago, 1936. 47p.

- Maggs Bros. Ltd., London. *Aerostation. [Collection acquired by Denver Public Library]*. London, 1940.
- Martin, Mamie Ruth. . . . *Check list of Minnesota imprints, 1849-1865* . . . Chicago, 1938. 218p.
- Matthews, Jim P. . . . *Arkansas books* . . . Fayetteville, Ark. [1931]. 31p.
- Moffit, Alexander. *Check list of Iowa imprints. (In: Iowa Journal of history and politics. Jan., 1938.)*
- Morsch, Lucile M. . . . *Check list of New Jersey imprints, 1784-1800* . . . Baltimore, 1939. 189p.
- New York. Public Library. *French printing through 1650; Mazarinades* . . . New York, 1938. 102p.
- *A catalog of the chapbooks in the New York public library*. New York, 1936. 90p.
- *Catalogue of the William Barclay Parsons collection*. New York, 1941.
- *German works relating to America, 1493-1800*. New York, 1939. 172p.
- Parsons, Wilfrid. *Early Catholic Americana*. New York, 1939. 282p.
- Philadelphia. St. Clement's church. Yarnall library of theology. *Yarnall library of theology of St. Clement's church, Philadelphia, the Ellis Horner Yarnall foundation* . . . Philadelphia, 1933. 334p.
- Rusk, Ralph Leslie. *The literature of the middle western frontier* . . . New York, 1925. 2v.
- Sabin, Joseph. *Bibliotheca americana*. [Smith, Sebastian Bach-Zwey.] 1929-36. 9v.
- Swarthmore college, Swarthmore, Pa. Friends' historical library. *Catalogue of Friends' historical library of Swarthmore college*. Swarthmore, Pa. 1893. 62p.
- Toronto. Public library. *A bibliography of Canadiana* . . . Toronto, 1934. 828p.
- Union Saint Jean Baptiste d'Amérique. Bibliothèque. *Catalogue . . . Collection Mallet. 2. éd.* Woonsocket, R. I., 1935. 302p.
- U.S. Surgeon-general's office. Library. *Index-catalogue* . . . Washington.
- *3d series*. Washington, 1932. v.10.
- *4th series*. Washington, 1936-40. vols.1-5.
- Van Patten, Nathan. *Printing in Greenland with a list of Greenland imprints in the Krabbe library*. Stanford university, Calif., 1939. 40p.
- Walker, Mary Alden. *The beginnings of printing in the state of Indiana* . . . Crawfordsville, Ind., 1934. 124p.
- Wright, Lyle Henry. *American fiction, 1774-1850* . . . San Marino, Calif., 1939. 246p.
- Yale university. School of law. Library. William Blackstone collection. . . . *The William Blackstone collection* . . . [New Haven] 1938. 113p.

In many instances it was found expedient to duplicate entries by photographing them instead of following the more tedious method of making type-written copies. This was especially true when time was of the essence, and where extremely large catalogs were concerned. Moreover, the photographic

copy yielded a facsimile of the original card whereas a typed entry was likely to contain errors. In order that work of this sort might be done more efficiently, there was obtained, for the duration of Project "B," photostat equipment especially designed for the reproduction and processing of library cards.

By this method, many thousands of entries were made available for the Union Catalog in a comparatively short time, representing, among others, collections in the libraries of the following institutions: Pan-American Union, Hoover War Library, Princeton University, Union Theological Seminary, Drexel Institute, University of North Carolina, German Society of Philadelphia, Bryn Mawr College, and Harvard University. Photostating proved itself a boon, too, in the matter of copying the temporary catalogs of scattered collections, accessions records, etc., in the Library of Congress, and it was particularly useful in recording the Rare Book Room holdings. Also, the photographic method for card reproduction has been continued, especially in the case of cards received from the Brown University Union Catalog.

Although the main effort of Project "B" was directed toward the increase of locations for books in American libraries, considerable attention was given to the development of a directory of special collections. The prime object of this undertaking was to indicate those libraries which possessed abundant material on specific subjects. The index was to be limited geographically to North America. Dr. Richardson described the preliminary work in its compilation as follows:

The first step was to gather previous lists of special collections, compile an index of the material from these, print this index in a title-a-line form to serve as a basis for soliciting from cooperating libraries information to correct, enlarge, and bring up-to-date the data recorded in previous lists . . .

Printed material in pamphlet form for vertical filing most useful for our purposes was next gathered out of the extensive material of the Library of Congress and a beginning made of a card abstract or calendar of it. Additions to this material were obtained by the circular appeal, correspondence, and field work.

An appeal was then sent out to cooperating libraries based on the printed index, and asking for correction and enlargement of the information contained in or referred to by this index. The responses came in the form of additions to the printed vertical file material, letters and written memoranda.³

This mass of records was thoroughly examined, checked and, finally, summarized on standard library slips, in duplicate. To insure uniformity in the treatment of the information concerning special collections thus received, Library of Congress subject headings were adopted, with cross references

³ U.S. Library of Congress, *Report of the Librarian of Congress, 1928* (Washington: Government Printing Office, 1928), p.249-50.

wherever necessary, from the subject forms submitted by the libraries reporting. One set of slips was filed by subject and subarranged by state, city, and institution; the other was filed by state and subarranged by city, institution and subject.

Information concerning special collections has been added to the index as it has come to hand during the nine years that have passed since the termination of Project "B." Through the cooperation of Robert B. Downs, Chairman, A.L.A. Board of Resources of American Libraries, the files of correspondence used as the basis of his three reports on *Notable Materials Added to American Libraries* have been made available to the Union Catalog staff for examination and copying of all pertinent notes of value to the Index to Special Collections. The current issues of periodicals devoted to the library profession, the annual reports of important reference libraries, the current volumes of *Library Literature* and other publications in the field of library science, and even the daily newspapers are scanned for references to descriptions of special collections. All articles found concerning important American collections are summarized and incorporated in the Index. About 7500 collections are represented at the present time.

Although funds have never been available for publication of the Index to Special Collections, a 16mm. microfilm copy has been made of it, and positive copies may be procured.

CHAPTER 18: *Compilation—Since Project “B”*

THE TERMINATION OF PROJECT “B” AND THE ESTABLISHMENT IN ITS PLACE of the Union Catalog Division as an integral part of the Library of Congress necessitated a complete change of policy and a greatly reduced schedule of work. The amount of money appropriated by the Congress for the increase and maintenance of the Union Catalogs for the fiscal year 1932-33 was only two fifths of the amount that had been available during each of the years under the Rockefeller grant. The staff of 11 (now 13) for which the new appropriation provided was barely sufficient to file the card contributions received for the main Union Catalog and to furnish the public service required of it. Work on nearly all of the auxiliary catalogs had to be discontinued indefinitely; the principal exception being the Index to Special Collections. However, despite this reduction in the size of its budget, the Union Catalog has been able, during the period September 1, 1932 to June 30, 1941, to file an additional 2,811,955 cards.

The expansion of the Union Catalog since 1932 has necessarily been limited to the following sources: cards representing materials in the Library of Congress; cards currently contributed by other American libraries; cards transcribed from microfilms of library catalogs; the photostating or checking of cards loaned by the Brown University and Philadelphia Union Catalogs; the checking of entries supplied by the American Imprints Inventory; and the clipping and mounting of titles from currently published book catalogs. During the fiscal year ending June 30, 1941, the number of entries added was 454,927.

The expansion of the Union Catalog as a finding list of Library of Congress materials is being carried out through an arrangement whereby the Library's card-producing units provide the continuity of their output either by furnishing copies of cards produced or by making the titles available to the Union Catalog for copying. Thus, there has been filed into the Union Catalog annually a large number of temporary entries for Library of Congress materials which either are not cataloged with printed cards or which do not appear in its public catalogs.

Every effort is being made to encourage all research libraries to increase their contributions of cards, to the end that the record of books located in

American libraries may be extended as rapidly as possible. Although the bulk of current card contributions is received from libraries which print or otherwise reproduce their own cards, in which case the procedure of sending copies to the Union Catalog is a comparatively simple matter; nevertheless, a number of libraries, including some which reproduce cards, are making heroic contributions in the form of titles especially typed for the Union Catalog. The following libraries contributed over 250,000 cards during the fiscal year July 1, 1940 to June 30, 1941:

LIBRARIES CONTRIBUTING TO THE UNION CATALOG, 1940-41

- Albion College, Albion, Mich.
Allegheny College, Meadville, Pa.
Brooklyn College, Brooklyn, N.Y.
Brooklyn Museum, Brooklyn, N.Y.
Brown University Union Catalog, Providence, R.I.
University of California at Los Angeles
University of California at Los Angeles, Wm. Andrews Clark Memorial Library
Catholic University of America, Washington, D.C.
Chapin Library, Williams College, Williamstown, Mass.
University of Chicago Libraries, Chicago, Ill.
University of Cincinnati, Cincinnati, Ohio
Cleveland Public Library, Cleveland, Ohio
College of Wooster, Wooster, Ohio
Colorado State College of Agriculture and Mechanical Arts, Fort Collins, Colo.
Columbia University, New York, N.Y.
Denver Public Library, Denver, Colo.
Duke University, Durham, N.C.
Emory University, Emory University, Ga.
Enoch Pratt Free Library, Baltimore, Md.
Fisk University, Nashville, Tenn.
Florida State College for Women, Tallahassee, Fla.
Folger Shakespeare Library, Washington, D.C.
Fordham University, New York, N.Y.
Grosvenor Library, Buffalo, N.Y.
Hamilton College, Clinton, N.Y.
Hampton Institute Library, Hampton Institute, Va.
Harvard Graduate School of Business Administration, Cambridge, Mass.
Harvard University Library, Cambridge, Mass.
Haverford College, Haverford, Pa.
Henry E. Huntington Library, San Marino, Calif.
Houston Public Library, Houston, Tex.
Howard Memorial Library, New Orleans, La.
Howard University, Washington, D.C.
Illinois State Historical Library, Springfield, Ill.

University of Illinois, Urbana, Ill.
University of Indiana, Bloomington, Ind.
Iowa State College, Ames, Iowa
University of Iowa, Iowa City, Iowa
John Carter Brown Library, Providence, R.I.
John Crerar Library, Chicago, Ill.
Johns Hopkins University, Baltimore, Md.
University of Kansas, Lawrence, Kansas
Knox College, Galesburg, Ill.
Lehigh University, Bethlehem, Pa.
Los Angeles County Free Library, Los Angeles
Massachusetts Institute of Technology, Cambridge, Mass.
University of Michigan, General Library, Ann Arbor, Mich.
University of Michigan, Law Library, Ann Arbor, Mich.
University of Michigan, William L. Clements Library, Ann Arbor, Mich.
University of Minnesota, Minneapolis, Minn.
Mount Holyoke College, South Hadley, Mass.
New York Public Library, New York, N.Y.
New York University, Washington Square Library, New York, N.Y.
Newark Public Library, Newark, N.J.
Newberry Library, Chicago, Ill.
Northwestern University, Evanston, Ill.
Ohio State University, Columbus, Ohio
University of Oregon, Eugene, Oregon
Peabody Institute, Baltimore, Md.
University of Pennsylvania, Philadelphia, Pa.
University of Pennsylvania, Furness Memorial Library, Philadelphia, Pa.
Philadelphia Museum of Art, Philadelphia, Pa.
Philadelphia Union Catalogue, Philadelphia, Pa.
Princeton University, Princeton, N.J.
Queens Borough Public Library, New York, N.Y.
University of Rochester, Rochester, N.Y.
Smithsonian Institution, Washington, D.C.
University of Southern California, Los Angeles, Calif.
Stanford University, Stanford University, Calif.
Stanford University, Hoover War Library, Stanford University, Calif.
Texas Technological College, Lubbock, Tex.
Texas University, Austin, Tex.
Tulane University Library, New Orleans, La.
Union Theological Seminary, New York, N.Y.
U.S. Coast Guard Academy, New London, Conn.
U.S. Department of Agriculture, Washington, D.C.
U.S. Department of Labor, Washington, D.C.
U.S. Federal Trade Commission, Washington, D.C.
U.S. Geological Survey Library, Washington, D.C.

U.S. Ordnance Department Reference Library, Washington, D.C.
U.S. Patent Office, Washington, D.C.
U.S. Weather Bureau, Washington, D.C.
Vassar College, Poughkeepsie, N.Y.
University of Virginia, Charlottesville, Va.
Wake Forest College, Wake Forest, N.C.
Washington State College, Pullman, Wash.
University of Washington, Seattle, Wash.
Wellesley College, Wellesley, Mass.
University of Western Ontario, London, Ontario
Western Reserve University, Cleveland, Ohio
Wistar Institute of Anatomy and Biology, Philadelphia, Pa.
Yale University, New Haven, Conn.

Although not included among the card contributors of the fiscal year 1940-41, the following additional libraries have made substantial contributions to the Union Catalog since 1937: Alma College, Augustana College and Theological Seminary, Boston Public Library, Cincinnati Public Library, Colonial Williamsburg Inc., Columbia College, Cornell University Engineering Societies' Library, General Theological Seminary, Goucher College, Library Company of Philadelphia—Ridgway Branch, University of Maryland, Michigan College of Mining and Technology, National Cathedral Library, Oklahoma State Library, University of Oklahoma, University of Pittsburgh, University of Pittsburgh—Dental School, Presbyterian Theological Seminary, Supreme Council of the 33° (Washington, D.C.), University of Toronto, Wesleyan University (Middletown, Connecticut), and the University of Wisconsin.

The large number of titles in many important Washington libraries and particularly in the various governmental departments was not secured by Project "B" because it was felt that stress should be laid at that time on the accumulation of entries from libraries outside the District of Columbia. After the expiration of Project "B," the lack of personnel prevented consideration of the matter as an undertaking by the Union Catalog.

The first step was taken in 1937, however, to remedy this situation. In February of that year a project was established by the Historical Records Survey of the WPA to microfilm on 16mm. film the catalogs of District of Columbia libraries. During the period of the WPA assistance, some 600,000 author entries were copied from the catalogs or shelf lists of the following 19 libraries:

Bureau of Railway Economics
Pan-American Union
Public Library of the District of
Columbia—Washingtoniana Collection

- U.S. Army Air Corps
- U.S. Army Industrial College
- U.S. Army War College
- U.S. Bureau of Mines
- U.S. Department of Agriculture
- U.S. Department of Labor
- U.S. Farm Credit Administration
- U.S. Federal Reserve Board
- U.S. Federal Trade Commission
- U.S. Geological Survey
- U.S. Naval Observatory
- U.S. Office of Education
- U.S. Office of Naval Records and Library
- U.S. Patent Office
- U.S. Tariff Commission
- U.S. Weather Bureau

The next step was to obtain further assistance in the matter of transcribing these microfilm entries onto library cards in order that they could be readily consulted. After protracted negotiation, on November 1, 1940, the New Jersey Historical Records Survey of the WPA established a project in Newark for the transcription of these film entries, and by October 1, 1941, over 135,000 cards had been received by the Union Catalog. As the transcription of each film is completed in Newark, the Historical Records Survey staff there arranges the typed cards to the third letter of the author entry so that only the final arrangement and filing of these cards will be necessary at Washington.

The desirability of incorporating titles from the various regional union catalogs into the National Union Catalog has been recognized ever since the establishment of a series of regional catalogs was begun in 1935, mainly as WPA projects. Although the lack of funds has made it impossible to undertake the checking of these essential records in a comprehensive manner, a modest start has been made in obtaining entries from the union catalogs at Brown University and Philadelphia.

In the case of the Brown University Union Catalog entries, arrangements were made with Dr. Henry B. Van Hoesen in 1935 whereby entries typed from the catalogs of various libraries in the Providence area would be selected and forwarded to the Union Catalog for photocopying before being added to the Brown University Union Catalog. Since 1935, more than 124,000 titles have been added to the National Union Catalog from this source.

By way of experiment, in 1937 the first two trays of the Union Library Catalogue of the Philadelphia Metropolitan Area were checked against the

Union Catalog in Washington with such favorable results that arrangements were made with Mr. Paul Vanderbilt, then Director of the Philadelphia Catalogue, to continue sending trays for this purpose as promptly as the editing in Philadelphia would permit.

Although the rate of progress has been slow (approximately one tray per week with a lapse of one year intervening), over 118,000 cards, including analytical entries, comprising that section of the Philadelphia Union Catalogue between *A* and *Bellac* have been checked. Of this number, 41,000, or 34 per cent, were not found represented in the Union Catalog. If this percentage should hold true for the entire alphabet, about one million new titles would be secured from this source. It must be noted that any large-scale program for checking the titles from the Philadelphia Union Catalogue, or from any other regional catalog for that matter, should include provision for editing the local catalog before the cards are sent to Washington.

Very favorable results also were obtained from a sample check of two trays from the Cleveland Union Catalog, in which it was found that 24 per cent of the cards in that catalog were not represented in the National Union Catalog. Although the checking of this catalog would be eminently worthwhile, and Dr. Herbert S. Hirshberg was eager to cooperate, the work could not be undertaken because of the inadequacy of the Union Catalog staff.

The setting up of the American Imprints Inventory as a unit of the Historical Records Survey of the WPA in 1937 provided the Union Catalog with an excellent opportunity to cooperate with this great undertaking and, incidentally, to secure from it entries and locations for a vast number of American books and pamphlets printed before 1876 which otherwise were practically unobtainable.

As is well known, the original purpose of the American Imprints Inventory was to provide American scholars with a nationwide inventory of materials printed in America essentially through 1820, but extended through 1890 for materials printed in certain western states. However, the date limits originally established were revised upward to include all American imprints to the year 1876, the year in which Leypoldt's *American Catalogue* first appeared.

Titles for the Inventory were secured by WPA field workers who have been assigned to canvass appropriate material in over 12,000 American libraries and forward them, through the various state agencies of the Historical Records Survey, to the headquarters office of the Inventory, which was set up in Chicago under the editorship of Douglas C. McMurtrie. The part being played by the Union Catalog staff in this undertaking, aside from that of assigning all library symbols used by the Inventory, is to search in the Union Catalog all titles submitted by the field workers after they have

been preliminarily edited by the Chicago office, but before their publication in the American Imprints Inventory series of state checklists. As a result, all locations listed on the Inventory cards are checked into the Union Catalog and all locations found in the catalog are added to the records of the Inventory. Special arrangement has been made for the Union Catalog to retain all entries not formerly recorded by it.

A by-product resulting from this cooperation with the American Imprints Inventory has been the addition to the Union Catalog of the 35,854 entries which appear in Charles Evans' *American Bibliography*. These titles were carded by the Chicago office of the Inventory.

ADDED ENTRIES

For many years it had been realized that the research value of the Union Catalog could be greatly increased and its editing facilitated by including in it all added entries for personal and corporate names appearing on Library of Congress printed cards, but the task of withdrawing the necessary cards from the stock in the Card Division, typing the entries and arranging them for filing was larger than could be dealt with by the limited staff of the Union Catalog. Again assistance was received from the WPA, this time from the District of Columbia office of the Historical Records Survey, which, in August 1938, assigned several of its workers to the Union Catalog. With their help the preliminary task of withdrawing from stock 500,000 relevant Library of Congress printed cards has been completed, and over two thirds of the added entries have been typed on these cards and the typing verified. Unfortunately, work on this project has had to be suspended due to the transfer of WPA assistants to other projects.

These 500,000 cards represent all added entries other than "Title" appearing on Library of Congress cards printed through July 1938. Since August 1938, an extra set of cards (now totaling 60,000), with the added entries especially printed for use in the Library of Congress catalogs, has been received in regular routine from the Processing Department. These two groups are being held until means are provided to alphabetize and file them into the Union Catalog.

FOREIGN LIBRARY CATALOGS

During the period of some 25 or 30 years preceding the inauguration of Project "B," it had been the policy of the Library of Congress to subscribe to most of the card-bibliography projects which had responsible support. As a consequence, there had been received and stored in the Card Division at least seven major groups of cards accumulated over the years. In 1927 these groups were turned over to the Union Catalog. They included: the A.L.A. Periodical Index (215,000 cards), over 100,000 cards representing German

dissertations published after 1909, *Cesky Katalog Bibliographický* (10,000 slips), over 1,000,000 cards from the *Concilium Bibliographicum*, 10,000 cards from the Deichmanske Bibliothek in Oslo, about 42,000 cards published by the Royal Library at The Hague, and some 5,000 cards issued by the Wistar Institute.

Except for the Deichmanske Bibliothek cards which are consulted frequently, the above-mentioned groups were not particularly significant to the operations of the Union Catalog, and were merely afforded storage space. No attempt was made to arrange the *Concilium Bibliographicum* cards, because a duplicate set was being maintained at the Library of the Department of Agriculture; while the German dissertation cards were received two years after the arrival of the dissertations they described, and in the meantime all foreign dissertations received by the Library of Congress had been listed by the Union Catalog staff.

As time went on, other catalogs of foreign library holdings were added to the resources of the Union Catalog. Some came in the form of printed book catalogs; among these were special editions of the following, printed on one side of the page: the British Museum *General Catalogue of Printed Books* and its monthly accessions lists, the *Deutscher Gesamtkatalog* and the *Catalogue Général des Livres Imprimés de la Bibliothèque Nationale*. Subscriptions were placed for the clipping editions of these catalogs in anticipation of the time when funds would be available for a union catalog of foreign library holdings, and they are being stored against that eventuality.

However, the importance of the British Museum monthly accessions lists to the cataloging staff and to research in general dictated the need for consolidating them into a single alphabetical sequence for practical consultation. This was accomplished by clipping and mounting all entries appearing in these lists subsequent to 1918. To date, over 500,000 such entries have been prepared. This catalog was transferred to the Processing Department of the Library of Congress during the past year.

Outstanding among the foreign catalog cards secured since 1927, are those published by the Vatican Library, the Biblioteca Nacional, Caracas, Venezuela, the Leningrad State Library, and the All Russian Book Chamber at Moscow, those from the last-named source constituting an author index to the weekly *Knizhnaia Letopis'*. The Vatican cards, which resemble very closely in form and appearance those of the Library of Congress, number over 30,000 at the present time.

For the purpose of determining the probable size of a national want list of books located in outstanding British, French, and German libraries but unrecorded in the Union Catalog, a sample section consisting of the entries, excluding cross references, that appear between *Abe* and *Aberdeen, George H.* in the British Museum and *Bibliothèque Nationale* catalogs and the

Deutscher Gesamtkatalog, was checked against the Union Catalog. This composite catalog contained 1,652 entries as compared with 2,293 entries in the Union Catalog. Although the Union Catalog section contained approximately 30 per cent more titles than were listed in the combined foreign library catalogs, the search disclosed that only 611, or 37 per cent, of the foreign-owned titles were located by the Union Catalog, and 40 per cent of these were found in only one American library; thus leaving 1,041, or about 63 per cent of the titles to be considered desiderata. Only 11 per cent were located in either the Library of Congress or the New York Public Library.

Since the section of the Union Catalog searched constitutes approximately $\frac{1}{4500}$ part of the whole catalog, it may be assumed from this sampling that the national want list of books from the sources examined would total 4,684,500 titles or editions.

Few of the entries in one foreign catalog were duplicated in either of the other foreign catalogs; and the number of entries common to all three was very small. A table showing the number of entries common to the various combinations of catalogs follows:

British Museum—Bibliothèque Nationale	60
Bibliothèque Nationale—Deutscher Gesamtkatalog	65
British Museum—Deutscher Gesamtkatalog	153
Bibliothèque Nationale—British Museum—Deutscher Gesamtkatalog	29

The obvious explanation for the paucity of duplication is that each of the libraries represented concentrates on the national literature of the country in which it is situated; this in turn indicates the need in America for a comprehensive union catalog of European libraries if the world's literature is to be made available to American scholars.

The conclusions reached above were corroborated by the results of a similar sample checking of titles from a catalog made up of about 1,000,000 entries clipped from leading European book dealers' catalogs. This test indicated that more than 50 per cent of the foreign research titles which have been offered for sale since the year 1910 are unrecorded in the Union Catalog.

Although the Union Catalog is used extensively for bibliographical reference, as a help in recataloging operations, and as an aid in book purchasing, its major use is that for which it was originally conceived, namely, the finding of research books in American libraries at the least time-cost to the user, and at the lowest money cost to the investigator or library. This objective is accomplished by personal visits to the catalog, by telephone or through correspondence.

The location of the Union Catalog in the main building of the Library of Congress, immediately adjoining the Library of Congress catalog and reading room, and its accessibility during the evening and holiday hours, invite

a considerable individual public use by many who are attracted by Washington's cultural advantages.

Personal visits are encouraged, especially in those instances where long lists of titles need to be searched, or where extensive bibliographical data is sought for publication, since the current service of the Union Catalog staff cannot ordinarily include work of this character.

Outstanding undertakings which have been checked against the Union Catalog in whole or in part, and later published or to be published, are the American Imprints Inventory, the continuation of Sabin's *Dictionary of American Books*, the *Union List of Serials*, the *Union List of International Congresses and Conferences, 1840-1937*, *A Preliminary Checklist of American Copies of Short Title Catalog Books*, Paul D. Magriel's *Bibliography of Dancing*, the *Bibliography of American Possessions*, and Edward C. Starr's *A Master Catalogue of Baptist Historical Materials*. To his Baptist bibliography of 60,000 items, Mr. Starr estimated that he added 30 per cent new titles from the Union Catalog, besides securing from it many thousands of additional locations. Numerous other less voluminous undertakings have been carried on at the Union Catalog with equally gratifying results.

The volume of correspondence received by the Union Catalog has increased appreciably each year since 1927 until at the present time more than 25 per cent of the staff are engaged in searching operations—a service which cannot be further extended under present fiscal limitations without detriment to the filing. It is noteworthy that an ever-increasing number of requests are being received from research laboratories and industrial organizations which are chiefly concerned with the locations of new foreign technical works.

Correspondents can greatly facilitate the work of the Union Catalog staff in searching requests by observing the following procedures:

1. As far as practicable, nearby resources should be exhausted before the Union Catalog is called upon.
2. Verify author, title, and imprint in some reliable catalog or bibliography for accuracy of spelling, dates, etc.
3. Arrange the items to be searched in alphabetical order by author (or title in the case of works known to be anonymous) and, in the case of more than one work by the same author, alphabetize by title.
4. Prepare the list in triplicate, leaving ample space between entries and in both margins for annotations in reply. Two copies should be sent to the Union Catalog.
5. Indicate place of publication, name of publisher, and date of edition. (If need is not specifically for one particular edition, state "any edition" and designate the volume or volumes wanted, if the entire work is not required.)

An additional service for the location of urgently needed books which are not recorded in the Union Catalog was instituted in 1936 when a weekly checklist scheme was developed in cooperation with the Association of Research Libraries. Before the institution of this plan, if a book was not found in the Union Catalog, a copy could seldom be located without much correspondence and loss of time. Under the present system the Union Catalog extends the search to the catalogs of some 50 reference libraries each week, circularizing among them a list of the books asked for but not located during the week. Each library checks the list promptly and notes its holdings. When the checked circulars are returned to the Union Catalog, any locations discovered as a result of the circularization are reported to the inquiring library. By this means an average of 65 per cent of all titles requested are found. The more important titles which remain unlocated after this exhaustive search are published by the Union Catalog in its annual *Select List of Unlocated Research Books*. This partial desiderata list of American research libraries could be extended to serve as the basis for a possible cooperative book-purchasing program.

It should be noted that although the Union Catalog through its service assumes the position of a central clearinghouse for interlibrary loans, it does not undertake to negotiate those loans. The inquiring libraries make their own requests for loan directly to holding libraries.

It is obvious that if the circularization service were requested by all libraries for all titles desired, the plan would become excessively burdensome. Therefore, probable nearby sources should be approached directly, reserving such inquiries to the clearinghouse as are seriously needed for important research and after a reasonable attempt at individual location has failed.

In addition to the routine use made of the Union Catalog by its own staff on behalf of correspondents and by many individuals for their own research, it is used extensively by the different departments of the Library of Congress for various purposes, some of which integrate with the nationwide services rendered by it.

The Card Division in 1940 searched the Union Catalog for more than 52,000 titles, and supplied from it 8,120 photostat copies of cards to a number of card-subscribing libraries, limited mainly to those which furnish copy for Library of Congress printed cards. This extra searching service, announced in the Card Division's 1932 *Circular on Cooperative Work*, provides a further search in the Union Catalog of card orders for which Library of Congress printed cards are not available. Titles thus found are supplied with full names and dates of authors, etc., copied from cards deposited in the Union Catalog by other libraries, or, if desired, a photostat copy of the Union Catalog entry is made for a nominal charge.

This type of searching service demonstrably enables libraries to reduce

their descriptive cataloging costs, especially in recataloging operations, provided they are willing to accept entries produced by many of the country's outstanding research libraries as adequate authority.

If through some device, such as strict adherence to the new *A.L.A. Catalog Rules*, or a modification of them, the quality of the entries sent to the Union Catalog from the major libraries could be developed to conform to a mutually acceptable standard, the availability from the Union Catalog of photographic copies of such cards unquestionably would serve to decrease the cost of descriptive cataloging to libraries subsequently acquiring books for which standardized cards have been made. In effect, the same idea is now in practice in connection with the cooperative cataloging and card-printing operations of the Library of Congress Processing Department. The extension of this principle to its ultimate, however, by connecting the product of the cataloging staff of one library with the needs of another through the medium of the Union Catalog beyond the limit to which cards are being printed by the Library of Congress, would seemingly constitute a long step forward in the direction of real cooperative cataloging.

Extensive use is being made of the Union Catalog by the Processing Department of the Library of Congress in connection with its descriptive, subject and cooperative cataloging operations. The practice is to consult the Union Catalog in most instances where entries have not been established in the official catalog, or cannot be clarified readily in standard reference books.

The book-selecting agencies of the Library of Congress constantly refer to the Union Catalog (which contains temporary entries for material not formally catalogued by the Library of Congress) to be assured that copies of expensive books being offered for sale are not already in the Library, or to evaluate them on the basis of their absence from the collections of other libraries.

By its reference to the Union Catalog, the Interlibrary Loan Service is enabled in hundreds of instances annually, to locate books in institutions nearer the source of the request than the Library of Congress, thus appreciably reducing its interlibrary lending burden, and assuring the instant accessibility of such books to Government agencies and investigators working in Washington. Similarly, the Photoduplication Service refers to the Union Catalog thousands of times each year in an effort to inform correspondents from which other library they may obtain microfilm or photostat copies of materials requested from the Library of Congress but not available in its collections.

Notwithstanding a present comprehensive use of the Union Catalog—it is estimated that one-half million searches are made in it annually—the real potentiality of its use has barely been recognized.

Librarians, confronted with increasing demands for special facilities and additional research books, and faced with increasing cataloging costs, are eagerly exploring the possibilities of closer library cooperation, especially in the fields of book purchasing, interlibrary lending and cooperative cataloging, in order to stem the tide of mounting costs. In these connections, the potential usefulness of the Union Catalog should not be underestimated. With library cooperation its theme since inception, and with its tremendous assets already brought under control, the Union Catalog if given the necessary support, logically and readily can expand its services many-fold.

CHAPTER 19: *Future Expansion of the Catalog*

WHEN THE ROCKEFELLER PROJECT FOR EXTENDING THE NATIONAL UNION Catalog was begun in 1927, the best available estimates of the number of titles which might be located in the United States pointed to about six million. Today the main Union Catalog locates, including analytical entries, nearly eight million different titles and editions (in excess of six million if analytics are disregarded), and a recent study by LeRoy C. Merritt indicates that there is a minimum of three million more titles in some eighty of the larger American research libraries and local union catalogs which should be recorded. In addition to this number, it may be assumed that there are countless thousands of very unusual books hidden from general use in libraries not included in this study, as well as in the uncataloged collections of the libraries considered.

The core of the whole union catalog problem is the recording of these unlocated titles. The practical objective is to connect a reader with any unusual book he needs at the lowest cost of time and money. Unquestionably the best method of attaining this end is to complete the National Union Catalog to the point where it contains a location for at least one copy of every book title in all American libraries. The solving of this problem will tax to the utmost the energies and ingenuity of librarians and the Union Catalog staff alike.

In considering the future expansion of the National Union Catalog, there are two sources which must be depended upon to supply the majority of the additions to it. These are the regional and local union catalogs and the cooperation of libraries.

The largest number of additional locations which could be gained in the shortest length of time are those available in the various regional, state, and local union catalogs. Specifically, Mr. Merritt's survey on union catalogs discloses that approximately one half the total number of anticipated new titles might be secured from fifteen regional and local union catalogs, with but three of them—the Philadelphia, Cleveland, and Ohio State catalogs—accounting for more than one third of the three million entries not now listed in the National Union Catalog.

Were financial means at hand, these entries could be incorporated into the

National Union Catalog either by microfilming each catalog, by having the entries photoenlarged, or by having them typewritten on cards at some central location; then filing them. Or, a routine could be established whereby a limited number of trays at a time could be shipped to Washington where a special staff could check the entries against the National Union Catalog, adding locations to cards already filed, and copying entries which were not in it.

Perhaps a superior method of card reproduction would be available in the recently perfected Radio Corporation of America's electrical facsimile transcription machine. This device resembles the apparatus employed in transmitting and receiving "wirephotos," and eliminates the use of conventional photographic materials and the need for their processing. It can reproduce library cards legibly and in full size on continuous rolls of thin, diazo-dyed paper at the rate of four or more per minute for a fraction of a cent each. The paper required by the machine is probably too thin for use as catalog cards but the facsimile process has demonstrated many other advantages which should more than offset the disadvantages of recopying on regular weight cards the items found to be lacking in the Union Catalog—a percentage which would average relatively low as compared with the total number of cards to be transcribed.

An additional reason for considering regional union catalogs as the most prolific source for additional entries for the National Union Catalog lies in the great economy that could be effected in the technical aspects of transcription and filing. Copying operations could be conducted in each instance on a wholesale basis with the most favorable technique; while checking and filing costs should be considerably less than normal because each regional catalog, arranged by author entry in the same manner as the National Union Catalog, could be handled in a single alphabetical sequence. It is axiomatic that filing costs tend to decrease as the number of cards to be filed increases, in relation to the size of the original catalog.

Although the copying of entries from regional union catalogs would be a significant step toward solving the problem of gaining locations of older research titles for the National Union Catalog, the usefulness of this plan would cease when these entries were copied, unless special provision were made to secure for the National Union Catalog copies of all future card accessions received by the regional catalogs.

The activity of the Union Catalog in connection with the matter of checking titles listed by the American Imprints Inventory has already been described. It is estimated that the Inventory will contain references to about one million different titles published in the United States before 1876, all of which will be entered in the Union Catalog by main entry upon the conclusion of this checking operation.

In many respects, it is to the larger reference libraries that the Union Catalog must look for its principal source of cards, both as to quality of entry and continuity of cooperation. It was through this method of outright card contribution that the bulk of the entries in the Union Catalog has been obtained, and obviously it is from this source that cards for currently cataloged books must be expected. Indeed, as a result of the growing tendency among reference libraries to utilize the greatly improved mimeograph, and other inexpensive duplicating processes for manifolding catalog cards, their contributions of such cards to the Union Catalog have increased sharply during the past few years.

Aside from the book location aspect, the acquisition of printed or near-print entries is important for two reasons: in the first place, the existence of a processed entry implies the lack of a Library of Congress printed card, and secondly, the processed card is generally a full entry, the product of a library's best cataloging. These processed entries are of prime importance in the editing of the Union Catalog and for use in supplying other libraries with the bibliographical information appearing on them.

The fact that the vast majority of American research titles are concentrated in relatively few large university, reference, and special libraries simplifies the technical problem of obtaining entries for them. Given adequate funds, efficient routines could be established whereby, if necessary, the entire catalogs of selected libraries might be copied by one of the available processes and checked into the Union Catalog. Of course it would not be necessary to copy some catalogs in their entirety. Materials represented by Library of Congress printed cards, processed cards of which copies already have been sent to the Union Catalog and all cards for certain classes, such as government documents, maps, etc., may be omitted.

Once the immediate problem of securing at least one location of every American research book is well on its way toward solution, the goal of the National Union Catalog then should be to locate, whenever possible, these same titles in six or eight geographic areas.

Within its limited means, the Union Catalog administration has promoted several undertakings which should prove significant in the furtherance of these aims. Among these should be mentioned: the sponsoring of a WPA project for a New York Libraries Union Catalog to consist of 2,500,000 cards, which, when completed, will become an integral part of the Union Catalog; the arranging for a New Jersey Historical Records Survey project for transcribing from microfilm 600,000 shelf-list entries copied from District of Columbia libraries, and the preparation by the District of Columbia WPA of 600,000 added entries appearing on Library of Congress printed cards.

Furthermore, there has been placed in the Library of Congress budget for

the fiscal year 1942-43 a request for a Union Catalog appropriation approximately three times as large as the present appropriation. If Congress provides these additional funds, it is proposed that part of them be used to begin the intensive checking of the Philadelphia and Cleveland union catalogs.

PART FOUR

Manual of Union Catalog Administration

by ARTHUR BENEDICT BERTHOLD,
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CHAPTER 20: *Preliminary Considerations*¹

EXCEPT FOR THE UNION CATALOGING PROJECTS PUBLISHED BY THE WPA IN 1940, this is the first attempt at a systematic discussion of the problems and procedures encountered in the compilation and the administration of union catalogs. Covering as it does a field of library practice still largely in the experimental stage, it has had very little of standardized practices to draw upon. The study is based to a large extent upon firsthand observation of a number of union catalogs in action, upon supplementary correspondence, and upon the author's own experience in the compilation and the administration of the Union Library Catalogue in Philadelphia since its inception in 1936. Although objectivity has always been the guiding consideration, it is thus quite likely that in certain cases the author's own predilections and point of view may have received a prominence which they perhaps do not deserve. The justification in such cases is lack of authoritative data. It was felt preferable, at times, to raise a point on the author's own experience than to ignore it altogether because of lack of outside data.

Union catalogs have attained their present number and importance not only because of a definite need for them, but also because of a certain amount of adventurousness which is as prevalent among librarians as among other professions. If a generalization may be ventured, faith seems to be the chief characteristic in the development of this new aid to research and library service. So typical has this been of the past that it is only now, over three decades after the first regional union catalog was started in California, that steps are being taken to gather and to organize the various experiences and problems for the benefit of those who may follow.

There is no particular mystery as to how union catalogs are started. The usual story appears to be that either a librarian or an influential group of library users becomes conscious of the fact that the resources of a single library are not equal to all the local demands. The tracking down of elusive references by correspondence and by personal visit to other libraries is, moreover, both time-consuming and expensive. What is more natural then than to arrive at the idea of a general inventory or location tool for

¹ Work on this *Manual* was begun under a grant from the Graduate Library School, University of Chicago.

the materials needed? In some instances the first step is a directory of local resources. This is the natural precursor of the union catalog, differing from the latter only in that the bibliographical unit is not the book, but a library or a special collection.

Once the need for a reference tool of locations is recognized, the next step is to agitate for its compilation. This has not been a hard task, since most librarians have long been convinced that their future lies definitely in co-operation among themselves and in the integration of their resources. The question is one of ways and means only; chiefly the latter. Once the means are forthcoming—and our benevolent and educational foundations have been very generous in this respect—the union catalog is definitely on its way.

The above remarks outline very roughly the way in which a number of union catalogs have come into existence. And this somewhat haphazard manner of their creation is also largely the reason why so many of them are now in what might be called a state of "suspended animation." The aim here will be to discuss some of the ways and means whereby such catalogs as are yet to be started may be put on a more permanent working basis, and to suggest how some of those already in existence may become living tools serving a real need efficiently and well.

Certain claims are usually advanced in support of the union catalog idea. It is asserted that a union catalog will:

1. Serve as a directory giving a local address of individual books
2. Distribute more evenly the burden of interlibrary loans
3. Save libraries the cost of buying seldom-used sets of rare books which can be conveniently borrowed
4. Prevent duplication of classes of books or types of library materials, such as local history or government documents
5. Enable libraries to complete broken files or secure books in their special fields by exchange
6. Serve as a cataloging reference tool and improve the quality of local cataloging²

These claims are justified, but only the first two services are of the kind which a union catalog may be said to perform automatically. In order that the other services may be developed to the full, something more than a union catalog is necessary. It is likely that when Mr. Van Male made a tabulation of these services, he had in mind not union catalogs in general, but primarily the catalog of which he was in charge and which is part of a bibliographical center. The difference both in point of view and in the scope of service is very great indeed. The point will be enlarged upon later on in the present *Manual*.

² John Van Male, "Union Catalogs and the Point of Diminishing Returns," in A.L.A. Catalog Section, *Catalogers' and Classifiers' Yearbook*, No.8 (Chicago: American Library Association, 1940), p.29-30.

In order that the formation of a union catalog should be placed upon a sound basis, it is well to consider the following questions:

1. What is the logical area of the proposed union catalog?
2. Who are the actual and potential users of the library resources of that area?
3. What are the library resources of the area?
4. How are these resources organized with regard to effective library service?
5. Is the area financially and otherwise capable of supporting a union catalog once it is established?
6. Is a union catalog and/or a bibliographical center justified on the basis of these findings?

AREA

Regional problems have been dealt with at considerable length by Mr. Merritt elsewhere in this work. It is sufficient to state here that it is not easy to be specific as to the proper area for a union catalog. The answer depends very much on considerations which sometimes do and sometimes do not have anything to do with geographical or political factors. It is logical to assume that a municipality or a state may be taken as a sound geographical basis for a union catalog. This plan has been adopted in several cases, and while it works out well enough at times, it is clear that to adhere strictly to these limitations is not always desirable. When a union catalog is connected with a state agency and is to some extent subordinated to a state library commission, then it is natural that a state should be the area; but when the union catalog is not strictly a part of a state agency and should, moreover, happen to be located in some city near the border of the state, there is very little reason for not including libraries in the adjoining state or states. The same holds true for more local union catalogs. In general, it must be said that the determination of the area should depend on the library needs of the community and should parallel rather closely local library development. A true regional union catalog almost always goes beyond the local library center. Such is the situation in Denver where the whole Rocky Mountain Region is included. It should, however, be noted that while such procedure is logical and efficient in the Rocky Mountain Region, it would not be applicable to certain other places. To cover a region of similar extent in the East, for instance, might require five or six union catalogs, because of the greater library resources and because of their logical concentrations.

USERS

The determination of the area depends considerably on the population, or, to speak in library terms, on the actual and the potential library users—a question dealt with in detail by Mr. Stone in Part II of the present volume.

Of actual library users, information may be derived from records of public library registrations, and from their circulation and reference statistics. For colleges and universities, students and faculty are to be considered, and, for the community as a whole, the needs of the business, technical and manufacturing establishments of the community should be taken into account. Although, as in other library services, union catalogs do not ignore the general reader, it is clear that such catalogs are of use chiefly to the academic world and to the professions. Consequently, in the planning of union catalogs it is perhaps more essential to consider the number of institutions of higher education with their students and faculty, the number of libraries and librarians, the professional and research workers, than the so-called "general reader."

To our knowledge, only one general study of union catalogs³ has been made thus far in which there was any attempt to gather information on actual users. According to this study, the chief users of union catalogs are libraries, varying from 44 per cent for Cleveland to as high as 90 per cent for Corvallis. Requests directly submitted by students and members of faculties vary from 9 per cent to 40 per cent. These figures, on their face, would appear to contradict the previous statement on the academic use of union catalogs, but actually they do not. They merely indicate that students and professors prefer to have their searching done by the library staff rather than to go to the trouble themselves.

BOOK RESOURCES

The next factor of importance to be considered is the actual library resources of the area, another question treated by Mr. Merritt, from a somewhat different point of view. Dean Wilson in his *Geography of Reading*⁴ lists 77 library centers with 500,000 or more books each. Since each center includes a city and the surrounding country within a radius of fifty miles, it seems clear that these centers could not always be taken as the basis for union catalogs. While acceptable for New York City or Philadelphia, for instance, the library center would not be a feasible union catalog location in other places where the number of books in the area do not give a correct impression of the extent of their use.

The library resources of an area are not difficult to determine. Usually there is available a local library organization's directory, or some other general statement of the libraries in the community. For the purpose of preliminary planning, this information is usually sufficient. It goes without

³Information supplied by Lucy M. Lewis, Director of Libraries of the Oregon State System of Higher Education, from a study made of six union catalogs in the summer of 1940.

⁴L. R. Wilson, *The Geography of Reading* (Chicago, American Library Association and the University of Chicago, 1938), p.119.

saying, however, that more emphasis should be placed on the quality of the books than on their actual number. In general, public or popular libraries will not have much to contribute to a union catalog, chiefly because the same books are available in a number of places and also because they usually are of comparatively slight research value. On the other hand, even small specialized libraries have a good deal to contribute, mainly because such material as they have is not easily available elsewhere.

ORGANIZATION OF RESOURCES

Of more importance than the actual number of libraries and the books in those libraries is the efficiency and businesslike organization of their administration. It must always be borne in mind that a union catalog does not depend entirely on a mere recording of the books available in certain libraries. While sufficient for a static location file, we must think of the union catalog in terms of a growing reference tool. In order to provide the best possible service, it has to be continually added to, kept up to date, and such records as are sent to it must be in as good bibliographical form as possible. Only in the first phase of compilation is the gathering of material in the hands of the union catalog staff. As soon as the basic file is compiled, the further expansion and usefulness of the catalog depends more on the contributing libraries than on the union catalog itself. This is true both for the actual records for books and for what happens after the union catalog directs an inquirer to a particular library. The union catalog is, after all, only a medium, merely a guide to the books and to information sources; in itself it is an indirect source of information. The chief work still remains with the library. Effective organization, an adequate staff and farsighted policies in public service, are, therefore, very essential to any library center regardless of whether it has a union catalog.

Miss Darsie has summarized the general type of questions usually asked of a reference librarian:

1. Questions concerning the use of library facilities
2. Requests for specific books by author or title
3. Requests for specific information in answer to a definite question without any particular interest shown in reading in that general subject field
4. Requests for advisory service in subject fields⁵

As is clearly seen, question 2 is the only one specifically coming within the scope of the union catalog. There is apparently no danger that the union catalog will ever replace or supplant a reference department. Except in the case of a bibliographical center, the union catalog is chiefly a directory of the addresses of books locally available. And while it is an added tool to the

⁵ Helen Darsie, "Measuring the Results of Reference Service," *A.L.A. Bulletin*, XXIX (September 1935), 604-05.

efficient management of libraries in a particular area, the union catalog should not be thought of as an agency to make the burden of local library service less exacting. In actual practice, whenever a union catalog becomes an active part of a library system, greater demands are placed on libraries than before. The union catalog is a tool that will help the library perform its functions more efficiently, but will not render any of the functions unnecessary.

FINANCIAL SUPPORT

The four questions outlined have to do with the needs and with the resources of a region. The fifth has to do with the financial ability of the area to support a union catalog. In reference to the last question it must be emphasized over and over again that no matter how important or how necessary a union catalog is, it ought not to be started before its financial backing is assured. On this point practically all existing catalogs have gambled. The usual attitude appears to be that since the cause is worthy, someone will step in and provide the means. To some extent such a view has been encouraged by the ease with which it has been possible to obtain federal assistance in the form of free labor. Generally, it may be said that the first part, that is, the actual compiling of the union catalog, is perhaps the least difficult. Federal authorities have been usually willing to supply the necessary labor, and educational and benevolent foundations have usually supplied the necessary 25 per cent of the sponsors' share. The real problem begins when the original grants have expired and the union catalog has to arrange for quarters, equipment, and a budget for staff salaries. Confronted with this situation, some catalogs are still evading the problem by not providing for any regular staff. Others have compromised to the extent that the catalog is administered and used either singly or jointly by some department or departments of a library, with a staff member assigned to keep the filing up to date. In still other instances the WPA and NYA workers have never ceased to run the catalog. Such situations are deplorable, and may contribute eventually to a good deal of skepticism about the whole value of regional union catalogs. There is, in fact, already a fairly strong feeling that regional union catalogs are wasteful and not justified, and that they should be replaced by small subject union catalogs capable of support by local special libraries. Furthermore, it is idle to count too much on the continuous support of educational foundations. While these foundations are frequently willing to help start a union catalog or any cooperative library enterprise, they justly feel that once such a project is organized its support ought to come from the community. Possible methods for securing such support are discussed in the next chapter.

The union catalog is primarily an agency for the location of books. Since

the book resources of a community grow, and thus as a whole are in constant flux, the union catalog, in order to perform its function, must be administered as a going concern continually adding to its files. In order that this aim should be attained, it must have the wholehearted and continuous cooperation of the contributing libraries. Before a union catalog is established, it is necessary, therefore, not only to provide for the means of compiling it, but also for its continuous financial support. Only when such aid is assured and when, moreover, both the book resources and the needs of the users clearly indicate the necessity for a union catalog, should the work be undertaken. To proceed without a clear understanding of the needs, a proper definition of the aims, and a definite source of income is to court nothing but confusion.

CHAPTER 21: *Project Organization*

BEFORE THE ACTUAL WORK OF COMPILED IS INAUGURATED, CERTAIN ORGANIZATIONAL measures must be taken. Unless the catalog is entirely an enterprise of a particular library, it is necessary to establish a directing body. This body, usually a committee, should then set about not only the ideological planning of the whole enterprise, but should also make itself responsible for immediate needs of the undertaking to insure its successful completion. Among these needs are a professional supervisory staff, clerical labor, and financial support.

SPONSORS

Generally speaking, it is not particularly important who first advocates a union catalog and how the idea develops up to the time that concrete steps are taken to realize it. At that point, however, careful planning is necessary and nothing should be left to chance. Since union catalogs are necessarily cooperative undertakings, it follows that all the cooperating libraries should have a representation in the planning. Depending upon the type of libraries to be included, this representation may take several forms. If, for instance, the union catalog is to embrace only libraries already closely allied within a system of library cooperation, the representation may be properly undertaken by the directing body of the system. Such appears to be the arrangement in Nashville with the Joint University Libraries, and in Corvallis with the Oregon State System of Higher Education. A somewhat analogous situation prevails in respect to the various state union catalogs where the planning appears to be largely in the hands of the state librarians or the state library commissions. In both cases the central directing bodies already exist, and the problems involved in the planning of the administration of a union catalog merely enlarge their sphere of responsibility.

Union catalogs which are neither state-sponsored nor strictly institutional may face the problem of organizing a sponsoring body in one of two ways. If the community already possesses a library organization more or less directly concerned with the promotion of cooperative activities, this organization may be logically expected to take a material interest in the catalog. If, on the other hand, there is no such organization, or if the organization

is generally ineffectual, a sponsoring body for the union catalog may be organized as an independent undertaking. A good example of the former is the union catalog sponsored by the Westchester County Library Association in New York. Here the Association is the direct sponsor of the catalog and its president is the responsible officer under whose general supervision the catalog was compiled and is now operating.

Philadelphia and Denver illustrate the latter type. The Bibliographical Center for Research, Rocky Mountain Region, is directly sponsored by all the contributing libraries, each of which is represented on the General Committee. In order that it might function properly and, moreover, exert a necessary directing influence upon the actual operations of the Center, the General Committee acts through an Executive Committee of three or four members, and more directly still through its Chairman. The Philadelphia organization differs somewhat from the Denver one in that the Union Library Catalogue is a private corporation with no elective representation from the contributing libraries; such representation is secured by invitation from the Corporation. The affairs of the catalog are administered by an Executive Committee of the Corporation which employs and maintains contact with the activities of the catalog through a Director.

While it must be admitted that local conditions may considerably influence both the size and the composition of the sponsoring body, there is much reason to emphasize the necessity for general and complete representation on the Committee of Sponsors. The Executive Committee, on the other hand, should be organized on broad representative lines and ought not to exceed three or five members. In the composition of the Committee of Sponsors, while libraries as institutions ought to be represented, it does not necessarily follow that the representative should be invariably the librarian. Educational institutions are perhaps best represented by members of their teaching staffs, and special technical or research libraries by members of their staffs engaged in research. In general, the point of view of the user is quite as important as that of the librarian.

The Executive Committee, broadly speaking, should be representative of all the interests of both the libraries and the users. In order to accomplish that aim, it is advisable to divide the contributing libraries into various categories, such as public libraries, college and university libraries, business and technological libraries, and the learned professions. Each of these major groups should be represented as well as the reading public. The organization of the Committee should include a Chairman who, because of his duties, may well be a librarian, a financial officer responsible for the raising of funds and the determination of the budget, and a secretary. The Committee of Sponsors would meet only once or twice a year, while the Executive Committee would meet at the discretion of the Chairman.

SELECTION OF LIBRARIES

Among the preliminary work to be done by the sponsoring body, or rather by the Executive Committee, is the preparation of a statement of aims. It is very necessary to have a clear understanding, first, of whom the catalog is to serve, and, secondly, of what material and what libraries it is to include. These are considerations of major importance, and no successful result may be expected if the problems are left to take care of themselves or are subordinated to the somewhat natural impulse to compile the catalog first and to discuss its scope and activities afterwards.

The selection of libraries naturally depends upon the nature, scope, and aims of the catalog. If, for instance, it is desired to compile a union catalog of a state system of tax-supported county and public libraries, the very statement of the aim of the catalog makes the selection of the libraries clear. If it should be decided to compile a catalog of, let us say, the art works available in the libraries of a city, again the selection of libraries appears to present no particular difficulties. With the area already defined, the selection would have to face only such questions as: (1) Are all the art libraries in the city to be included? (2) What is to be done with the special art departments of the general public and, if present, the college and university libraries? (3) Should anything be done about including valuable but unorganized art material in several libraries in the city not maintaining separate art departments?

In this hypothetical example of the art union catalog the question of selecting the libraries can be answered only after first answering another question: Is the union catalog to be one of art libraries exclusively or of the art resources of the city? If the former, only the libraries must be considered. If the latter, all the art depositories of the city must be taken into account.

A real problem of selection, however, must be faced when the intention is to compile a general union catalog. To the writer's knowledge, only the Union Library Catalogue of Philadelphia started out with the intention of including all the libraries in the city and its vicinity. It thus ignored the problem of selection and thereby laid itself open to the criticism that it has included alongside of many important libraries a number of libraries which are either so popular in character or so limited in service and holdings as to be of no practical value to the research needs of the community at large.

Although it is not possible to be dogmatic about the principles of selection to be employed, there are certain fairly obvious considerations which it is not wise to disregard. Selection must be based not only upon a consideration of what a library contains but also upon that library's general policy in regard to the outside public, its attitude toward library cooperation, and its willingness and ability to undertake an added burden for the common

good. Furthermore, since the aim of the union catalog is not primarily to record the location of every book in an area but chiefly the location of such books as are not generally available, the purely popular libraries may be said to be excluded by definition. The same observation holds, though in a somewhat restricted sense, for the less important special libraries in a field which is already well covered by one or more large special libraries. Automatic elimination of this kind ought to precede any attempt to draw up the final list of libraries to be included.

Bearing the above points in mind, the selection of libraries might well follow some such scheme as the following:

1. Define the area to be covered.
2. List the various libraries in the area, together with information about their holdings, staff, policy in regard to cooperation, interest and ability to support the union catalog.
3. Arrange the libraries by type, such as public libraries, college and university libraries, libraries of learned institutions and societies, various subject interests such as art, law, medicine, history, business, technology, etc.
4. Determine which institutions in each group are most important both as to holdings and as to service facilities.
5. Determine which collections in each group are merely duplicating the contents and services of the key libraries.

After such analysis, libraries in group 5 may be dropped without further consideration. At least one library in each group enumerated under section 4 ought to be invited to become an active participant in the union catalog. Depending upon the value of their holdings and the ability and willingness to cooperate, as many more libraries from each group may be included as the contemplated scope of the catalog permits. But such additional inclusions should be made on the basis of a clear understanding of both the advantages and the new responsibilities involved. Although practically no formal agreements have been made between the union catalog and contributing libraries in the past, such agreements would be of real value. The future development of union catalogs ought not to be left entirely to the vagaries of time and to the good will of succeeding crops of libraries and boards of trustees.

METHOD OF COMPILATION

One of the crucial problems which must be solved at the very outset of a union catalog project is how best to secure the basic card file. Depending upon the size of the catalog, the problem is ordinarily one of copying, by one method or another, cards varying in number from several hundred thousand to three or four million. Before considering what method of card reproduction is best suited to the requirements, it is necessary to discuss the

qualities of the card itself, in order that it shall be of maximum value in a union catalog.

The cardstock should be of the best quality. This is an essential requirement of all catalog cards, for among the chief desiderata in cataloging is permanence for such records. The stock used by the Library of Congress for its printed cards is generally conceded to be excellent, and is therefore safe to consider as a standard. Realizing this fact, at least one union catalog has used exclusively Library of Congress cardstock, purchasing, rather inexpensively, large quantities of unsold Library of Congress cards and using the blank versos to type its own entries.

A second requirement, due especially to the variety of cataloging practices and the consequent need for editing, is that the card surface should be of a kind permitting alterations when necessary. It should, in short, be suitable for corrections and additions in ink, pencil, or with the typewriter, and for the impression of various stamps used in the recording of location symbols.

With reference to bibliographical details on cards, the union catalog does not generally require the completeness of entry usually found in "full cataloging." While the heading should be as full as possible, a short title and imprint is usually adequate for identification purposes. Of the collation only the pagination is essential, and the various and, at times, quite lengthy notes of complete cataloging are seldom of direct use. By almost general agreement, the classification symbols or shelf marks are omitted not only as unnecessary but as positively confusing. With all these possible omissions, it seldom happens that an entry destined for a union catalog exceeds the space available on a single card.

Finally, the union catalog requires only one copy of each entry. In its simplest and most prevalent form, the union catalog is no more than a simple main-entry file. Without regard to the number of copies or the number of libraries where they are found, each separate work is represented by only one card. With these facts in mind, we may now consider the various methods of card reproduction and their application to union catalog work.

For all practical purposes, various card-reproducing methods may be grouped into the following four categories: manuscript, typescript, photographic, and print. Each of these has its advantages and disadvantages. Manuscript cards are produced by hand, either using ink or pencil. It is the most primitive method, and requires the least technical skill. It is, however, a rather laborious process, and readability depends to a great extent on the quality of the individual "hand." It is economical in the sense that a direct copy can be made and in a single exemplar without an intermediate stage, but copyists with good and fairly uniform "hands" are required. Furthermore, the process is the slowest.

Typescript cards are neat and uniform in appearance, and require no special skill in their execution. They have all the advantages of the manuscript card, and have none of the disadvantages. It is the method most generally used in the reproduction of catalog cards. As with manuscript cards, this process permits selection and abbreviation of the information to be included, and the result is immediately available for the union catalog file.

Photographic methods of card reproduction have been fairly extensively used in union catalog work, and all of them have the undisputed advantage of giving an exact image of the original. In the direct copying processes, the cards are ready for use in the union catalog file after the necessary chemical treatment. The indirect method presupposes the original preparation of a negative and a subsequent printing of positives of the actual size or of enlargements. Microfilm negatives have been used lately to serve as bases for the preparation of typescript copies of catalog entries, rather than for photographic enlargements of card size.

One general objection to all cards of photographic origin is that their chemically treated surfaces are comparatively less permanent than printed or typed catalog cards. They are also more apt to be affected by exposure to light, and their surface is not well adapted to corrections or additions by ink, typewriter, stamps, and pencil. Furthermore, they have a tendency to bend or "roll up," and this characteristic makes their use in catalog trays somewhat annoying. The reproduction of the text permits of no selection of detail, and, for that reason, photographically reproduced cards are not ideal to serve as "master cards." They are too individualized, carrying much purely local information—such as shelf marks—and do not permit of rearrangement of the material to conform with the one-card system.

The microfilm negative, on the other hand, is far more flexible in application. If typescript copies are to be prepared, there is a decided advantage in having the work done in one place, a plan made possible by the microfilm. It is true that an intermediary stage between the library catalog and the type card is involved, but the cost of the negative is comparatively small. And a considerable saving may be effected by comparing each film with the growing catalog and copying only such entries as have not already been copied from other films. It is, in its results, essentially the same as the typescript method, with the added advantage of centralized copying for all the catalogs.

Printed cards are not, as a rule, available for union catalog work unless they are purchased direct from the Library of Congress. Furthermore, even when they are purchased, supplementary entries must be prepared locally by one method or another. Nevertheless, every effort should be made to obtain the printed cards. They are not only of better bibliographical quality than locally produced cards, but also considerably less expensive. A large union catalog of more than a million entries should endeavor to obtain a complete

Library of Congress card set. If, for financial reasons, such a set cannot be procured, printed Library of Congress cards ought to be purchased whenever they occur in the catalogs to be copied. It is definitely less labor and also less expensive to copy the order numbers from the cards and forward them to Washington than to copy the cards themselves.

The best basic file for a union catalog is without a doubt a set of printed Library of Congress cards. When direct local copying of cards is necessary either because a Library of Congress set cannot be obtained or when it must be supplemented by cards for additional local holdings, the typescript card is to be preferred. The typescript reproduction method is the simplest, permitting full advantage to be taken of available inexperienced clerical help. The cards resulting also permit the necessary adaptation and corrections usually connected with certain technical difficulties in photographically reproduced cards. The original filming of library catalogs, while it may be eliminated in small-scale undertakings, is, moreover, of advantage in the compilation of large union catalogs because the process is fast, thus not subjecting the contributing libraries to appreciable inconvenience, and because it permits the successive comparison of the films with the basic file, therefore tending to diminish progressively the number of cards to be copied.

FINANCES

A most important duty of the sponsoring body is to provide necessary means for the compilation of the catalog. If federal help is available in the form of relief labor, the amount to be raised by the sponsors ought not to exceed 2 cents per card; if, on the other hand, the entire cost of compilation should be provided for, the amount may be estimated at 6 cents per card. The entire question of cost is fully discussed in another portion of this study.

The budget must in all cases provide for certain fairly constant items. These are (1) supervision, (2) clerical staff, (3) equipment, and (4) quarters. A fair amount of professional supervision may be estimated at 10 per cent of the total staff. The size of the staff is again determined by the size of the catalog to be compiled, the method of compilation, and the amount of time allocated for the compilation of the catalog. Of equipment, the chief items are cardstock, typewriters, film cameras and films, catalog trays and cabinets. Typewriters and cameras are usually obtained on a rental basis. Card trays and cabinets have been in certain cases constructed locally, but a more satisfactory procedure is to order them direct from one of the library supply houses. The question of quarters is almost always taken care of by an existing library, usually at no special cost to the catalog.

Insofar as information is available, a large majority of union catalogs obtained initial funds through grants from educational foundations. In only one case is it reported that the money was raised by the contributing libraries

themselves. Union catalogs directly sponsored by state libraries or library commissions were financed by funds allocated for the purpose within state budgets. Private and local contributions appear to have played a minor part in all cases.

In the preceding chapter it was stressed that support for union catalogs should be forthcoming from local sources, including the libraries in the system. This recommendation is both logical and just, insofar as the union catalog acts as a purely local research agency. When, however, it undertakes to serve the research needs of scholars throughout the country, the situation changes. The enlarged field of service should be supported by funds from educational foundations on the same basis as other scholarly and research activities. The question is one of degree only. Philadelphia, for instance, finds that for the period from February 1940 to June 1941, only 41.1 per cent of its users were local libraries. Perhaps as much as an additional 20 per cent may have been in one way or another traced to a local library. Even so, about two fifths of the service of the Union Library Catalogue of Philadelphia is for the benefit of scholars and research workers elsewhere. Furthermore, the proportion is likely to increase as the union catalog assumes more and more the functions of a bibliographical center. The source and proper allocation of support should thus be fairly evenly divided between local libraries and agencies, and research organizations and educational foundations of national scope.

STAFF

Since the compilation of a union catalog requires the full time of at least one trained librarian, the actual direction of the work is usually delegated to a regularly salaried Director or Superintendent. It is assumed that this person should be a good administrator, but it must be realized also that the compilation of a union catalog is not strictly speaking a cataloging task, but rather the preparation of a bibliographical reference tool. The person who is to accomplish this objective successfully must be, therefore, not only a cataloger by training but also a bibliographer or, if one prefers, a reference librarian of broad background. The point of view and the convenience of the user determine the aims, while the goal itself is particularly difficult if one considers the variety of forms of entry and the discrepancy of catalog rules encountered whenever the catalogs of two or more libraries are to be combined. One must largely unlearn a regard for particulars, and concentrate on essentials, in order to succeed in such work.

Practically all union catalogs started after 1936 have used federal help in the form of WPA labor. As this labor is still available, there seems to be no particular obstacle to obtaining the necessary clerical and subprofessional help. The amount of professional supervision necessary depends very con-

siderably on how much of the work can be reduced to routine procedure. In a manual entitled *Union Cataloging Projects*¹ recently published by the WPA, the essential work units are outlined briefly, and the whole procedure of WPA participation in the compilation of union catalogs is very clearly presented. According to this manual, if the catalog is to be compiled by means of microfilm, four functional units are envisaged: the Photographic Unit, the Typing Unit, the Filing Unit, and the Revision Unit. Since the functions of each are very admirably outlined, and since they would be followed in all essentials even when WPA workers are not available, they are reproduced here in full:

1. *Photographic unit.* This will consist of one or more groups of three persons per photographic machine. These persons will be trained, by a librarian, in the technique of selecting the cards to be photographed, and will operate in the libraries to be covered in the union catalog, selecting and photographing cards which are to be included.

2. *Typing unit.* By this unit, which is the basic production unit of the project, cards will be typed from the microfilm records prepared by the photographic unit. There should be a professional librarian as supervisor of each group of twenty (20) typists. While these librarians are not required to have a great deal of experience, technical training as given in a library school is valuable. The librarians chosen to fill these positions should be able to get along with people, be adaptable, willing, and possess a great deal of patience.

3. *Filing unit.* One trained supervisor will be necessary for the operation of this unit, to arrange the cards, which have been prepared by the typing unit, in proper order for the finished catalog.

4. *Revision unit.* It is the function of this unit to review and edit the completed cards. Because of the high degree of skill required, one librarian will be required to direct two revisers.

If, on the other hand, straight copying by longhand is substituted for the photographic method, a Copying Unit will take the place of the Photographic Unit, differing from it only in the procedure used. This unit may be eliminated altogether, by substituting for it the Typing Unit working directly from the catalog trays in the libraries. In any case, the essential procedures remain the same, and the problem of training and supervision presupposes the same proportion of qualified librarians. Unless, therefore, very large-scale operations are contemplated, the professional staff need not exceed four or five persons. This number would include, in addition to the Director, a Supervisor of the Photographic Unit, two or three Supervisors of the Typing Unit, and one Supervisor of the Filing Unit. Since the Revision Unit does not begin to operate until after the cards are filed, it need not be considered.

¹ U.S. Work Projects Administration, Division of Professional and Service Projects, "Union Cataloging Projects" (Washington, 1940. 36 (33) p., WPA Technical series: Library No.1, April 1, 1940). (Mimeographed.)

CHAPTER 22: *Mechanics of Compilation*

ONCE THE SCOPE AND AIM OF THE CATALOG IS DEFINED, THE LIBRARIES SELECTED, and the funds and staff provided for, the compilation itself may be undertaken. This process, generally speaking, includes the following five phases: (1) selection of entries, (2) determination of bibliographical detail and form, (3) copying procedure, (4) location symbols, and (5) filing operations. Each of these steps deserves separate discussion.

SELECTION OF ENTRIES

Since most union catalogs are concerned only with main entries, the problem of selection is not particularly troublesome. Simply stated, selection is merely a matter of distinguishing the author and other main-entry cards from added and subject entries. However, as in almost all cases the procedure is entrusted to untrained people, some previous instruction is essential.¹ The usual course is to take a tray of cards from the dictionary catalog and to go through it, card by card, explaining the differences between the various types of entries, until the searcher is able to recognize main entries at a glance. Little difficulty is encountered in catalogs where the so-called "unit card" is used, but there are still a fairly large number of libraries where each type of card follows its own form, with varying fulness, and in such instances the differences should be explained thoroughly. In any case, provision should be made for the selector to work under a qualified member of the library staff to whom all doubtful cases may be referred.

The matter of selection is considerably more difficult when it is decided to exclude certain types of material such as fiction, juvenile literature, music, and public documents. It is then necessary to warn the selector of the appropriate identification marks which may appear on these cards, such as special classification symbols on juvenile literature and on fiction, or subject headings, or any other marks of identification. In general, the whole process of selection should be worked out in as straightforward and routine a manner as possible, so that practically nothing is left to the discretion of the selector. A general principle should be that whenever there is doubt, the decision

¹ An excellent example of instructions for selecting entries has been prepared for the Union Library Catalogue of the Atlanta-Athens Area. It is reproduced in full in Appendix A of this *Manual*.

should be made by a trained librarian or the project supervisor; or, when these cannot be readily consulted, to include rather than exclude doubtful items.

When direct copying is undertaken, the cards selected are left in the tray, but are stood on end. After copying and comparison, they are turned down and the tray is locked and replaced. When cards are microfilmed, the same process of selection is followed, but once all the cards in a tray have been selected and stood on end, the tray as a whole is turned over to the filmer. The cards are put back in their places after each exposure or series of exposures. Those engaged in the copying or filming are usually qualified to replace the cards, but since mistakes are possible even in this simple procedure, it is well that each tray be checked by either a member of the staff or the supervisor before it goes back to the file.

Although there is some difference of opinion as to the desirability of added entries for joint authors, editors, illustrators, etc., it is the writer's conviction that all such entries are of genuine value in a union catalog. It is likely that if such cards were included, the size of the catalog would be doubled, but the advantage of an additional approach to the item desired is very real. Series cards have also been generally neglected, and while these are not particularly significant in the case of publishers' series, there is much reason for making an exception in favor of subject series. The union catalog definitely suffers from lack of a subject approach, and while a subject-series card is not a complete solution to the problem, it is none the less a partial answer of particular importance in the case of monographs. It is highly desirable that all the principal monograph series should be found both under their collective and under their individual titles.

The whole problem of card selection or rather the selection of types of material to be included is one of much concern. Fiction and juvenile literature, for example, may be considered theoretically of slight importance, but in actual practice no easy dividing lines are possible. Every field of knowledge and every type of literature is a legitimate subject for study and investigation, and it is the business of the union catalog to be of help to all students and investigators. Moreover, there is no hard and fast line between the important and the unimportant. The point of view and the time element are vital considerations. For these reasons a union catalog which discriminates in selection is not one likely to give maximum service to the public. Since error seems inevitable, it is best to err on the side of liberality and uncritical inclusiveness, rather than in the other direction.

DETERMINATION OF BIBLIOGRAPHICAL DETAIL AND FORM

Because it is not always necessary to have a very full entry for the purpose of identifying a book, some union catalogs are not particularly strict in their

bibliographical demands. The usual requirements are the author's full name, a brief title, place, publisher, and date. When the cards are produced by photographic means, details are reproduced exactly as they are on the original cards and, therefore, the amount of detail given is not at the option of the copyists. Bibliographical completeness becomes a problem only when the photographic records are transcribed either by hand or on the typewriter.

In general, it is wise to establish a ruling that the fullest bibliographical information should be obtained whenever any copying is done.² This principle is essential not so much for the location service as for the supplementary services for which the union catalog may be used. For instance, there is no sound reason why a union catalog cannot be used to supply cataloging or bibliographical authority for catalogers who are not equipped with extensive reference tools, or who do not have the time or the means for consulting such tools. It is well to act on the theory that the union catalog may eventually become a part of a bibliographical center, and in that case the fullest and best information is no more than necessary. For books, the author's full name is always necessary no matter what form the catalog may take. The title of the book should also be reproduced in full Library of Congress form, except that the author's name, if single, does not need to be repeated. Place of publication and publisher's name should be given in full, and in no case should the date be omitted. The same fulness is also required in the collation, especially as regards pagination. The practice of giving only main paging and omitting all preliminary leaves or introductory material numbered with Roman numerals is short-sighted, because quite often two editions of rarer works can be differentiated only on the basis of a careful investigation of their pagination.

Although it is not always necessary to indicate the type of illustrations, it should be a practice to record the fact that a book is illustrated. The rule is especially important for volumes where the illustrations constitute the most important part. Often enough the pagination takes no account of the large number of plates which constitute the major part of the book. Size is usually less important than the other considerations, with certain exceptions, but since there is no special difficulty in copying the size notation, it might well be given for all the older and rarer works. The only items which can be omitted from a card without seriously impairing its usefulness are descriptive notes, call number, and subject headings, unless it is definitely planned to prepare a subject or a classified index to the main files at a later date.

For periodicals, as well, complete records are necessary, particularly as to holdings. It is true that many union catalogs deliberately follow the policy of not recording individual holdings, but if the catalog is to give maximum service, holdings are essential. It is suggested that for periodicals a master

² Sample entries are given under "Examples" in Appendix A.

card should be prepared, with a closed entry when a title has ceased publication, and an open entry when it is still in process of publication. The actual holdings of individual libraries ought to remain on separate cards. No location symbols should be put on the master card, chiefly because there would not be sufficient space to include all the specific holdings of the various libraries. These cards can then be tied together—a master card in front—and filed either in a separate periodical file or in the main card file. Additions and withdrawals would be recorded in pencil on the cards representing each library, just as is done in any periodical department.

In addition to cards for books and periodicals, all pertinent cross references ought to be copied. This should be done even though it may not appear probable that some of the cross references will be of use in the union catalog. Often enough, later editing may depend almost entirely on the number and detail of references included.

COPYING PROCEDURE

All through the stages of compilation, it is necessary to bear in mind two considerations: first, that there may be as many forms of cataloging as there are libraries, and, second, that the work is to be done largely by people who have no formal library training. The first point indicates rather clearly that steps should be taken to insure consistency of form in the transcription or copying stage. The second suggests that if certain modifications of form are to be permitted, they should be both simple and clearly explained, so that nothing is left to the individual copyist but to follow a routine procedure.

Contrary to the views of certain union catalog officials, untrained workers perform their functions best if they are told not only what to do but also why it is important that certain things should be done in a certain way and not in another. Uniformity is perhaps the chief objective to stress, helping to explain the particular forms of entries used and also serving as an easily understood motivation for the amount of detail required on each card. In order that typists and supervisors may feel themselves on common ground and understand each other, it is necessary to work out a simple and yet fairly inclusive list of definitions of cataloging terms.³ Even more important is the preparation of sample entries of all the forms of cards to be used in the catalog, a matter found so generally necessary that all union catalogs using untrained help have prepared special folders on the subject.⁴

It goes without saying that a period of probation and training must precede any actual copying. The time should include both an explanation of

³ A list of the more useful cataloging terms prepared by the Union Library Catalogue of Philadelphia is reproduced in Appendix B.

⁴ A useful sample of "Instructions for Typing Cards" is given in Appendix F of U.S. Works Progress Administration, Division of Professional and Service Projects, "Union Cataloging Projects" (WPA Technical series: Library No.1, April 1, 1940). (Mimeographed.)

cataloguing form and terminology, and the actual typing of a number of entries of varying difficulty and of all the forms. Standards of speed are not as important as accuracy and ability to interpret complicated and antiquated forms, and to translate them into prescribed practice. The period of instruction varies considerably with each typist, from a few hours to several days. Yet, since all such copying is aimed at mass production, the individual time element ought not to be considered too closely. There is less opportunity for instruction later on when the typist has already joined the copying staff, and she should therefore be permitted to proceed only after it is reasonably certain she understands all the main characteristics of the job.

It is estimated that one supervisor is sufficient for every group of 10 typists. Since a fair rate of typing would produce about 220 cards per typist per day,⁵ the supervisor would have to inspect approximately 2,200 cards per day. It is obvious that when one must handle over six cards per minute and, in addition, answer a number of constantly recurring questions, no very thorough checking can be expected at this stage. The supervision is designed chiefly for expediting the copying itself, and for such routine checking and transformation of entry form as can be accomplished on the spot without consulting reference tools.

After the cards are typed, they are turned over to a proofreader for comparison with the original copy or film. At Columbus, where figures were available on this phase, it was found that one proofreader was necessary for every group of three typists. Speaking still in terms of a copying group of 10, this will necessitate the adding of two or three proofreaders to work with each supervisor. The errors most commonly encountered are improper division of words (especially in foreign languages), inconsistency in indentation, and misspellings. Cards containing such errors are returned to the respective typists for correction of minor mistakes or for retyping when corrections are not possible.

Cards approved by the proofreaders are turned over to a special clerk for coding. This operation consists of stamping on each card the symbol for the library of its origin. Cards are sent to the coder's desk in packs as they come from the proofreaders, and each pack is accompanied by a slip bearing the library's name or code symbol. Care must be taken to indicate clearly the origin of the cards, especially if they come from a departmental or branch library where the symbols are differentiated only by the addition of a single letter. It is the coder's responsibility to see that the key to the holdings of the area should be foolproof.

Most of the larger libraries are likely to include cards in non-Roman alphabets, and these require special handling. Assuming that all cards are

⁵ Cf. the figures supplied by Paul Vanderbilt in his "Brief Account of the Principles and Formative Period of the Union Library Catalogue in Philadelphia" (1937), p.13. (Mimeographed.)

filmed, the typist handling the film will skip all such cards and merely note the film reels where they occur. A specially designated worker will check over these reels and either copy the non-Roman entries if he is qualified to do so, or will identify them by a tiny punch in the margin of the film opposite the entries. In Philadelphia, all reels containing cards in non-Roman alphabets were rubber-stamped on the containers: "Includes Cards in Non-Roman Alphabet," and their copying was undertaken after the main typing was completed. The Hebrew cards were typed on a special typewriter by a student familiar with the language, the Russian and Greek entries were copied in longhand, and the Chinese, Japanese, Arabic, and other similar entries were photostated from the originals.

Another type of card which may require special handling is the printed Library of Congress card. If the union catalog already possesses a basic Library of Congress card file, the cards need not be reproduced in permanent form. Whether copied in short form on slips or filmed as the rest, they would serve only for comparison and identification with corresponding entries in the basic file. If no basic Library of Congress card file is available, two courses of handling the printed cards may be followed. According to the first, it may be decided to treat all cards in exactly the same manner, i.e., to have them all typed for the union catalog. If this plan is adopted, the Library of Congress cards in the original catalogs present no special problems except that of omitting certain details in collation usually deemed unnecessary on typed cards. The second procedure is somewhat more complicated, but productive of better results. Many union catalog authorities have come to the conclusion that although fairly simple entries are usually sufficient for purely identification purposes, the union catalog should aim, as far as is practicable, at bibliographical fulness of entries. As previously indicated, this is one of the chief prerequisites to the catalog's becoming a really effective tool in a bibliographical center. It thus becomes a matter of some concern for the catalog to secure the best and completest entries obtainable, and these are unquestionably the printed Library of Congress cards.

The ordering of Library of Congress cards may be done in one of two ways. If the catalogs are hand-copied, whenever the copyist finds a Library of Congress main-entry card, she copies the card order number on a separate slip and puts it aside. These slips are stamped with the symbol of the library, and filed according to the special arrangement suggested by the Card Division of the Library of Congress.⁶ Slips from other libraries, identified by symbols, would be interfiled with those already on hand, and after all the slips are thus interfiled, the duplicates may be removed and location symbols

⁶ Cf. U.S. Library of Congress, Card Division, *Handbook of Card Distribution* (Washington: Government Printing Office, 1925).

transferred to the master slips. The entire order is then forwarded to the Card Division. As the staff of the Division is always most cooperative and willing to arrange for the handling of large orders at special rates, the whole lot may be obtained at a substantial saving.

The second procedure differs from the one outlined above only in that all Library of Congress cards are first filmed in their proper sequence together with the typed cards. The copying of order numbers is done centrally, from the films, and is usually delayed until all the filming is finished. The advantages of this method are that the copying does not need to be done separately in each library and that the actual entries will appear as permanent records on the film. In other respects, the procedure remains the same. When the cards are received from the Card Division, the order slips are also returned. All that is then necessary is to compare the order numbers and to transfer the library symbols to the respective cards. They are now ready for filing in the union catalog.

Since the copying of cards is both the most labor-consuming and the most expensive from the viewpoint of materials used in the whole process of union catalog construction, the copying should be so planned as to involve as little wastage as possible. It is obvious that the fewer cards there are to be typed, the less the cost of compilation. Assuming that the total number of cards, each representing an individual book, is 2,000,000, present experience points to an offhand estimate that as much as 33 per cent may be expected to be duplicates. Assuming it would be possible to omit the copying of more than one card per book, a considerable saving would be effected. Although it is not possible to eliminate all duplication, chiefly because of the varying forms of entries for the same work, perhaps as high as 20 per cent may be eliminated by judicious planning of the copying process. The following procedure is recommended.

Before either filming or copying of cards is undertaken, investigate the quality of cataloging in each library to be included. Film the best-catalogued library first. If this should also be the largest library, so much the better. Then, while the other libraries are being filmed, put the whole typing force to work copying the cards of this particular library that has been selected on the basis of quality. Stamp the cards with the appropriate symbol and file them as soon as produced. When the time comes to copy the cards of the next library, again select one on the basis of the excellence of its cataloging and its size. Each typist will have to copy one letter or part of a letter of the second library. At the same time the typist will be given the corresponding section of the cards already typed, for comparison. Working from the film, the typist will compare each filmed card with the cards already typed. If they are identical, she will put a clip on the card already typed, or, if she finds no corresponding entry already in the file, she will copy from

the file and place a clip on the card. As soon as a tray is finished, it should be routed to the coder's table where the appropriate library symbol should be stamped on all cards bearing a clip. In this manner, all the obvious duplicates can be eliminated at the very start, and the process may be continued to the end of the compilation period. The only exceptions to this procedure may be the few small and specialized libraries, with only a few thousand cards each. Here the duplication to be expected is small, and the process of searching and identification comparatively time-consuming.

LOCATION SYMBOLS

The union catalog not only indicates what books exist but also where they may be found. It is therefore very essential that every card should bear a symbol indicating its origin.⁷ The simplest scheme is, of course, to give the name of the library. This practice is followed by one of the oldest regional union catalogs, the one in the California State Library at Sacramento. It is clear, however, that while the full or slightly abbreviated name of a library may be the least-complicated way of identifying a card, such a method is quite wasteful of space. In fact, whenever several names of libraries are to be recorded on a single card, the space required is often more than can be conveniently spared. The verso of the card may have to be used and sometimes even a second card.

The union catalogs of Cleveland, Columbus, and Philadelphia, while retaining the principle of the original name, have abbreviated it to such an extent that a rubber stamp of less than an inch is used for the coding. The symbol, nevertheless, is merely a refinement of the California system. It is short enough for convenient handling and retains enough clues to the full name to be locally understood, but must be interpreted to an inquirer unacquainted with local libraries. Philadelphia, indeed, has prepared a special list of location symbols which is enclosed in every letter answering inquiries, and is given to anyone using the catalog.

A successful system of abbreviations should preserve enough mnemonic features to make its reading simple for those familiar with the libraries coded. The system is devised chiefly for local convenience, and is often quite as cabalistic to the outsider as some of the more universal, but less mnemonic, schemes. The chief disadvantage of local codes is their individualistic nature in a cooperative agency which cannot afford to be provincial.

While the aforementioned systems of location symbols are correctly described as local both in intention and in use, there are two other systems even less happily chosen. Both, however, are capable of general application. The union catalog of Nassau County in New York adopted a simple numerical system in imitation of that used by the *Gesamtkatalog der Deutschen*

⁷Samples of location symbols are given in Appendix C.

Bibliotheken. Each library is given a simple number which becomes the permanent symbol for that institution. Thus, all cards from the Glen Cove Public Library receive the number "9" and those of the Lynbrook Public Library, the number "23." There is no attempt at introducing mnemonic features, but it must be admitted that the plan may be applied to any library anywhere with equal ease or, rather, difficulty. The Vermont union catalog at Montpelier has hit upon a scheme even better adapted to general use. Cutter numbers have been used almost universally in the United States to code authors' names and their works, and the system is adapted to almost unlimited expansion. The Vermont authorities have assigned Cutter numbers to the cooperating libraries and have thus introduced a system of coding easily answering their needs. It is accurate, flexible and quite logical, and does, moreover, retain some vestiges of mnemonic features. It rates, nevertheless, among the individualistic and, therefore, the less desirable systems.

The most adequate system for coding libraries is undoubtedly that described by Dr. Malcolm G. Wyer,⁸ and subsequently elaborated and applied in the *Union List of Serials* and the Union Catalog of the Library of Congress. When the Union Catalog's *Key to Symbols* was first printed, in April of 1932, it contained only 367 symbols. The revised edition of 1936 lists about 700 symbols, and in 1939 the Historical Records Survey further expanded and amplified the publication to include all the libraries investigated for the American Imprints Inventory.⁹ The latter work brings the code up to some 10,000 entries, and is being constantly revised, added to, and the whole developed in close cooperation with the authorities of the National Union Catalog.

The main features of this code may be briefly enumerated. Each symbol begins with a capital letter, or a capital and a lower-case letter, to denote the name of the state. The symbol for the state always stands for the state library. A second capital letter is added for cities and towns. Here again a lower-case letter may sometimes be necessary to differentiate two or more cities beginning with the same initial. As in the case of the state libraries, the combined letters representing the state and the city denote the public library in that city, or the most important library (usually that of a university) in a town where the public library is comparatively small and unimportant. The various libraries in any given city are distinguished by a third letter or series of letters. And when branch or departmental libraries must be distinguished from the parent institution, a dash is inserted between the main symbol and the letter or letters denoting the branch library.

⁸ Malcolm G. Wyer, "Standardized Abbreviations for the Names of Libraries," *Library Journal*, LII (1927), 802-06.

⁹ Historical Records Survey, *Location Symbols for Libraries in the United States* (1st ed.; Louisiana State University, 1939). A list of *Additions and Corrections* was published in January 1941.

The advantages of this system are several. In the first place, it is a logically developed scheme which, because of its strictly geographical approach, not only identifies each library by a symbol but also groups libraries by states and by cities and towns. The same grouping also provides a mnemonic feature not equalled by other systems, except locally in the case of abbreviated names. A final point in its favor is the fact that the scheme has been already developed on a national scale and has been thoroughly tested by three of the largest union catalogs and lists in the country—the Union Catalog of the Library of Congress, the *Union List of Serials*, and the nationwide catalog of the American Imprints Inventory. It is also used by the union catalogs in Denver and in Lincoln, and by a few of the smaller subject union catalogs. No union catalog can do better, therefore, than to apply this system of coding which will at once make the location symbols easily understood and help to establish them as a national system.¹⁰

FILING OPERATIONS

Organizing the card file of a union catalog is both simpler and more complicated than general library filing. It is simpler in the sense that it deals only with author or main-entry cards, whereas the library has to distinguish between the main entry, the added entry, and the subject entry. It is more difficult in that it has to reconcile the good and the bad points of a large number of cataloging systems, some of which may be traced back to practices originating before the appearance of Cutter's *Rules*. It must be noted also that a union catalog will generally have more cards for the same author—personal or corporate—than the largest library included; and where the individual library will usually be able to get along with a simple alphabetical arrangement of titles, the union catalog will have to devise elaborate classifications. For instance, a Shakespeare collection of 500 titles and largely in English may be treated as any other collection of an equal number of cards, but when it grows to 6000 or 7000 entries in a score of languages, and when a single title appears in over 100 editions, the filing problem becomes very complex indeed. And there are literally thousands of such sections in any union catalog of several million cards.

The first stage of filing, sorting, is a purely mechanical operation. In its simplest form, it consists of checking each incoming batch of cards to see whether they are all of the same letter of the alphabet. The least experi-

¹⁰ It is of interest to note that Mr. Douglas C. McMurtrie has recently published a *Proposed List of Location Symbols for Libraries in all Countries of the World except the United States* (Adv. ed.; Chicago: Chicago Club of Printing House Craftsmen, 1941) which is an extension of the principles evolved in the Library of Congress system to the needs of libraries outside the United States. It may be questioned whether foreign libraries will agree to the rather cumbersome use of the symbols for continents as suggested in this proposal, but the general principle of the scheme is sound and does not admit of serious questioning.

enced clerk may be assigned to this task. However, the process is usually carried much farther.¹¹ When cards are typed haphazardly and typists and revisers fail to keep them in the order they appear on the film, it is sometimes necessary to carry the sorting (and alphabetizing) operations as far as the fifth letter. This need not happen if the typists and revisers preserve the existing order of entries as they are copied; if done consistently, the sorting procedure may then be limited to a minimum—a matter of only attending to dislocated or changed entries.

The filing proper consists of two stages. At the start the cards of the first library copied are arranged in the basic file. This step often involves no more than placing in proper sequence the batches of typed cards as they are received. Real filing commences with the arrival of cards from additional libraries. To make the process as economical as possible, it is advisable to try to obtain all cards for the same letter before filing is begun. There would seem to be a contradiction here. Elsewhere in the present manual it is recommended that in order to eliminate duplicates at the source, the largest and best catalogued library should be copied first and all other libraries should be copied in a descending order of size and bibliographical perfection. This plan is undoubtedly the best method for eliminating duplicates, but it is not necessary to carry it too far. Unless all the libraries are of very nearly the same size, an unusual occurrence, it is sufficient to have only two or three libraries copied in this manner. Their combined card-stock will amount to something like 50 per cent of the total, and with these consolidated into a basic file, the rest of the libraries may be copied at the same time, letter by letter.

It is not easy to estimate filing speed, chiefly because the speed of filing decreases as the catalog becomes larger. Furthermore, the strain of continuous filing for six or more hours per day tends to affect both speed and accuracy. On the basis of figures supplied by authorities of the Pacific Northwest Bibliographic Center, it seems fair to expect untrained filers to attain an average speed of 113 cards per hour in a file of 1,500,000 cards. The same source supplies the following figures for the first five operations taken separately and based upon experience with a Library of Congress depository set: sorting by first letter, 620 cards per hour; by second letter, 1,080 cards; by third letter, 876 cards; by fourth letter, 556 cards per hour; and final author agreement, 187 cards per hour. With proper allowances, straight filing may go as high as 250 cards per hour in a catalog of 200,000 or 300,000 cards, while in a catalog of several million cards, such as the National Union Catalog, the number of cards filed per hour may drop to about 80.

In regard to filing rules, it is not wise to place in a filer's hands any of the already existing filing codes, for they are all designed for use with dic-

¹¹ For sample instructions on sorting and filing procedure, see Appendix D.

tionary catalogs, while union catalog filers have to do only with main-entry cards. Then too, few libraries ever have to deal with several cards for exactly the same edition, while in the union catalog this is the rule rather than the exception. The filer must be able to recognize the identity of entries notwithstanding the fact that they may present considerable variations in form and in detail. It is evident that, confronted with such problems, intelligence is far more important than any set of filing rules, no matter how well developed.¹²

Filing in a union catalog is primarily a process of identification. It has, therefore, been found useful to stress certain simple principles about the general make-up of the catalog card. Generally speaking, each card may be said to consist of five more or less essential parts: (1) author, (2) title, (3) imprint, (4) collation, (5) notes. For filing purposes it is seldom necessary to consider all these parts. Author and title are, of course, essential, but otherwise the essential details are selective. The imprint, for instance, consists of place, printer or publisher, and date. Of these three elements, the date is most important, and quite often the only item needing consideration. The title, too, does not need to be taken quite as literally as it may appear on the card. In many cases it is too wordy, or again too abbreviated, to permit of a literal interpretation. It has been found advisable to abandon in many cases the full title in favor of what may be called the "essential title." This is that word or phrase in the title which most concretely names the book without any adornments, as *Pickwick* in the case of the *Posthumous Papers of the Pickwick Club* and *Don Quixote* in the case of *El Ingenioso Hidalgo Don Quixote de la Mancha*. By underscoring these words and phrases and disregarding all the rest, the filing order is determined by date of publication, place and publisher. Thus, in the order of their importance, the parts of the card to be considered are: author, essential title, date of publication.¹³

Filing in a library catalog is almost exclusively alphabetical. The union catalog, having no traditions in the matter, has experimented with other orders of arrangement as well. Experience has demonstrated that while the purely alphabetical arrangement is most convenient for the first or main order of the catalog, the subarrangement of titles in a purely alphabetical sequence is not always advisable. The titles are always apt to be abbreviated or reproduced incorrectly. This is especially true as regards the classics and, in general, for titles in foreign languages. Cards of this type are best arranged in a purely chronological order. Such a plan is simple, for the filer and has

¹² A list of "Simple Filing Rules" used at the union catalogs of Philadelphia and Nebraska is reproduced in Appendix E. All the refinements in filing were explained individually.

¹³ This matter, and other filing and editing problems, are discussed more fully in the author's article, "Editing a Union Catalog," *Library Journal*, LXIII (1938), 222-23.

two definite advantages for the catalog: duplicate entries are very easily recognized, and the section is in "service order." Requests for classics nearly always emphasize the date of a particular edition, and this arrangement merely reverses the order of searching: instead of beginning with the title—often incorrectly given—and ending with the date, the date is placed first and the title afterwards. The chronological arrangement is best, at least up to the time of thorough editing, for all classical and voluminous authors, anonymous classics, and cards in non-Roman alphabets.

EDITING THE FILES

Editing a union catalog consists of three operations: (1) elimination of duplicates, (2) revision of the filing order, and (3) verification and correction of entries. In actual practice, these operations are often executed at the same time and by the same person, but because the first and the second operations need much less professional knowledge than the third and are therefore generally entrusted to nonprofessionals, it is advisable to discuss them separately.

Combining, or the elimination of duplicates, should not start until after all the cards have been filed. Such procedure eliminates the necessity for going over the same section several times, and also insures selection of the best entry as the master card. The procedure is something like this: the clerk takes a tray of cards, separates the entries for the same author, and examines them for duplicates. The comparison of titles cannot proceed very well without revision of the filing order. The two operations are thus very closely allied, except in cases where the alphabetical must yield to a classified or purely chronological order.¹⁴ When two or more cards are found for the same title, they are stood on end in the tray and clipped together. The most complete card, selected for the master entry, is placed first. Printed Library of Congress cards are always preferred to typed ones. When all the cards in the tray are examined and all the duplicates clipped together and stood on end in their appropriate places, the tray is passed on to the coding table. The coding clerk is expected to check the cards before stamping them. Doubtful cases are referred to a trained supervisor. When the stamping is finished, the cards are turned down and the tray is locked. If it contains a simple section of straightforward author entries, the tray is ready to go back to the files. If, on the other hand, it should contain cards for the classical authors, the official publications of corporate bodies, long series of title entries, or material of a similar nature, the tray is turned over to a professional staff member for final arrangement, which often takes the form of thorough editing.

¹⁴ A set of instructions for the combining operations as used by the Union Library Catalogue of Philadelphia is reproduced in Appendix F.

Periodical entries present a problem apart. If it is decided not to retain information about each library's specific holdings, it is only necessary to select the card with the date of the earliest issue and to combine on this the cards for less complete sets. If, on the other hand, it is decided to give actual holdings for each library, the elimination of duplicate cards would be a mistake. All cards should be retained, so that it would be possible to indicate exact files for each library, and in order that there will always be space available to indicate future changes in holdings. If the former procedure is favored, the problem is one of combining; if the latter, it is one of editing.

Revision of the filing order is a process which stands apart only in theory. In actual practice it is part both of the combining and of the final editing operations. Neither can be carried on without close attention to the correct sequence of the cards. Three more subsidiary operations may be mentioned here. As the catalog grows, the trays must be labeled. Continuous expansion must be expected until all the cards are filed. As the trays must be prepared before the filing, it is clear that the conventional word and name divisions used in libraries cannot be satisfactorily followed. Instead, labeling should proceed purely mechanically on the basis of various combinations of letters. No matter how impossible they may seem, it is only in this way that provision may be made for all possible combinations of letters which one may expect in a union catalog. The catalog needs to be expanded from time to time as new cards are added, and since it is impossible to foresee which particular section may grow fastest, ample space should be left in each tray. After all cards are filed, the catalog trays will be very unevenly filled. It is only after the duplicates are removed that a more permanent labeling system may be devised. Many trays will have to be consolidated, and some sections, because of changed or revised entries, will have to be eliminated altogether. Thus, expanding, consolidating, and the attendant labeling will be part of the editorial process to the very end.

Much of the editorial work proper can be performed on the basis of the cards already in the files. For instance, while some entries will be very short and wanting in many details, one or more libraries may supply cards of excellent bibliographical quality. It is not overstating the case to say that perhaps 60 per cent of all the verification necessary to establish correct and full authorship may be accomplished by a critical examination of locally supplied catalog cards. If the union catalog should also possess a basic file of Library of Congress cards, the percentage may be as high as 90. For the rest, the usual reference tools must be consulted. The printed catalogs of the British Museum and of the Bibliothèque Nationale are of first importance. The *United States Catalog* is less fundamental, chiefly because the works it includes are modern and usually treated in most library catalogs. In all matters pertaining to serial publications, the *Union List of Serials* may be

taken as undisputed guide. With these reference tools at hand, and access to a Library of Congress depository file, the editors should have no special difficulties. Cards which cannot be verified in any of these reference tools are so few that one can afford to ignore them.

Union catalogers are not agreed as to the amount of editing necessary. In Philadelphia little more is attempted than to establish the correct author's name in its full form, whether personal or corporate, and the latest title for a periodical. In Denver, on the other hand, very thorough editing is favored. None but a completely verified card is added to the union catalog. The rest remain in a separate catalog until such time as they are identified in some standard reference work. If identification is not possible, the entry is returned to the library of origin for comparison with the book itself. It goes without saying that such careful editing will eventually result in a catalog of excellent bibliographical quality. The problem is one of time and means; the goal cannot be seriously questioned. In any case, it should be recognized that there is a natural tendency for the catalog to improve in bibliographical quality quite apart from any systematic editing. Modern cataloging practice is constantly improving and thousands of well-cataloged cards are added annually, some of them for the older material. In this way even a very indifferently edited catalog is certain to improve from year to year.

In order that the mass of cards constituting the union catalog may assume the arrangement and workmanlike organization which its full exploitation demands, editorial work must concern itself with the following problems:

1. To determine the correct or most commonly used entry for each catalog item
2. To bring together under a single entry form all the items which for logical and/or bibliographical reasons should be found under the same heading
3. To arrange the various entries under the same heading in the most convenient order consistent with the demands of service
4. To provide all necessary cross references and guides to indicate either a preferred form or practice or to help establish a bibliographical relationship among the various headings or entries
5. To arrange the whole card repertory according to generally approved principles of library practice

As previously indicated, determining the correct entry may be often accomplished by reference to other cards in the file. When this is possible, it is a simple matter either to add some necessary information to the heading or to cross out the heading and superimpose a correct one; or, when there is not sufficient space, to retype the card entirely. When the correct entry cannot be established by reference to the files, the decision as to authority should be left with a professional person in charge of the editing, and in all cases where two or more authorities disagree, the decision should be referred to one person responsible for all editorial work. Once the correct heading

is established, and variations noted, the next step is to search all the available places in the files for any variations of headings, and to assemble all cards belonging together before the section is put in final form. At the same time, the necessary cross references are made, and left in the places from which cards are withdrawn. After this work is done, and duplicates eliminated, the editor may proceed to arrange the section in its proper order. It is neither necessary nor advisable to change or to correct every card in a group to the fullest and most desirable form. This course would involve an unusual amount of work, and union catalogs are not as a rule so well provided with workers that they can afford such perfection. In many cases it may be sufficient if 20 per cent of the cards in any one group are bibliographically correct. Care must be taken that the correct cards are usually at the beginning and at the end of the group, with a few interspersed in between. A batch of cards thus organized, and provided with the necessary guide cards, is quite as easy to use as one with each card in perfect form.

Editing may proceed either tray by tray, or by attention to selected sections of particular difficulty and complication. Whichever form is adopted, it is necessary that the catalog as a whole be kept in mind. It is, therefore, well to make liberal use of guide cards. These may be often substituted for completely edited cards, especially when one has to deal with a section of cards rather than with individual items. It may be remarked here that although all union catalogs use guide cards to some extent, only the Union Library Catalogue of Philadelphia has evolved a system especially adapted to union catalogs. This system is based on the principles of differentiation and subordination. It recognizes two main units, both of which have to be considered in the correct arrangement of the files: the author, and the individual title. The one has to do with a group of cards under the same heading, the other with individual titles in that group. All group divisions are indicated by a blue guide card, one-half left-hand cut. The guide card is used both for personal and for corporate authors. A green one-half center-cut guide card is used for individual titles if the section marked by a blue guide card extends for over 100 titles. In the case of corporate authorship, such as states, cities, countries, associations and institutions, the principal author is again indicated by a blue guide card. Departments, bureaus, committees, etc., are indicated by a buff guide card, one-half right-hand cut. If a second subdivision has to be indicated, as in the case of congressional committees, a salmon-colored one-half center-cut card is used. Long series of titles, as under the heading *Laws, Statutes, etc.*, are subdivided by means of the already mentioned green guide cards. Even outsiders using the catalog have commented upon the advantages of this system of guide cards, which not only indicates at a glance the limits of a particular author, but also guides one unerringly to the particular title or subdivision required.

A word should be said about foreign countries, especially cards needing transliteration. A simple way to deal with these is not to include them in the general union catalog at all, but to keep them in a separate file or to turn them over to a special department of the library housing the union catalog. This has been done, for instance, by the Union Catalog of the Library of Congress for its cards in the Russian alphabet. These cards are maintained as a separate union catalog by the Slavonic Department. However, as the division is a purely artificial one, based solely on the use of a foreign alphabet, the logical plan would be to include these cards in the main file where they naturally belong. In the matter of transliteration, the rules adopted by the Library of Congress should be preferred to any others, and all cards ought to be examined on the basis of these rules. This procedure is necessary because, as is well known, some Russian and Arabic authors have been first translated into either French or German and have thereby acquired French or German forms of spelling for their names. As for the titles themselves, if the union catalog has a specialist who is familiar with the languages involved, he should place the cards in their logical order among the other works of the author. Otherwise, a fairly satisfactory way out of the dilemma is to arrange all these cards at the end of the author's works, and among themselves they may be arranged purely chronologically by date of publication. This is not an ideal situation, but it is much better than to have the cards either completely segregated from the author's other works or to have them interspersed indiscriminately in the main files.

Another problem which has caused much trouble in the editing process is the fairly large number of anonymous works, especially among older imprints. One way of solving this matter is to establish from the very start a duplicate file of all bracketed heading cards, arranged purely by title, and another file of anonymous works arranged purely by date of publication and then by title. It is clear, of course, that to follow this scheme two cards are necessary for every unidentified anonymous title, and a third card must be prepared for the author when he is discovered. But as anonymous works are quite as likely to be asked for by title as by author, there is no satisfactory alternative. The chronological file is somewhat less essential, but it is the only way to identify an anonymous-author card if the title, as sometimes happens, is not correctly copied. Every union catalog which has a chance to obtain a duplicate set of cards from the American Imprints Inventory for its libraries ought to take advantage of the opportunity. These cards, in chronological order, constitute a very valuable tool in the identification of anonymous works.

CHAPTER 23: *Administration and Upkeep*

UNION CATALOG ADMINISTRATION, ALTHOUGH A DISTINCT PROBLEM IN ITSELF, has been more often ignored than faced even in a superficial way. Of the 18 regional and local union catalogs, only eight have independent staffs, and of these eight only one union catalog has a staff fully qualified by training and by experience, and adequate to its efficient functioning. This is not to say that the other catalogs are therefore failing with their jobs, but simply that they could accomplish much more if their administrative staffs were enlarged and placed on a firmer financial basis.

Only three of the catalogs are administered independently of libraries. These are also the catalogs which have made best provision for their staffs. Even so, only one of them has a staff of three trained librarians on its own payroll. The others have one each, supported in one case by untrained and partly trained WPA help. While formal training may be omitted in lieu of experience, there is no really adequate substitute for a regularly salaried staff. It is on this point that all the union catalogs, except one, leave much to be desired.

The matter of higher administrative control has been already touched upon in earlier chapters of this *Manual*. If the union catalog is a distinct part of a library, there is usually no special or separate administrative authority to determine its functions. At most, a person or a committee is appointed by the library for this purpose. The result of such an arrangement is more a matter of information than of directive supervision. No clear statement of aims is provided and no new fields of service are explored. The catalog is used as a regular reference tool by one or more of the library's departments. The librarian, of course, exerts a general administrative supervision just as in the case of any other department. In the few cases where the union catalog is not part of a library, but claims a more or less independent existence, there is a board of directors usually consisting of a body of men chosen in the same manner as the trustees of a library. This body may vary in name. In at least one case it is known as the committee of sponsors. It usually engages in two kinds of activities. In the first place, it is the chief administrative body of the union catalog; it appoints a sponsor's representative to maintain contacts and general supervision over the cata-

log or, in other instances, over the person in charge of its services. It also either retains the power of appointing all members of the union catalog staff or of engaging the director and approving his selection of the rest of the staff. It considers such problems as the inclusion of new libraries, the extension of services, general policies of the catalog, and its financial obligations. This last question is of special importance. Sponsoring bodies have consequently tried to enlist the active interest and cooperation not only of scholars and librarians but also of business men. It happens occasionally that the board itself has to assume certain financial obligations.

The financial upkeep of the union catalog is, next to its compilation, the most acute problem. No satisfactory financial arrangements have been made by any of the catalogs. Union catalogs are administered as free institutions just as public libraries are, and yet, because they cannot in the nature of things demonstrate any spectacular service to the community, they are for that reason less able to enlist popular support than libraries. It may be said that, from a purely financial point of view, union catalogs connected with libraries or with state library systems are perhaps best situated for all ordinary purposes. They do have at least a sure minimum income which, if not sufficient for anything else, is enough to keep them in existence. Independent union catalogs have proceeded on the optimistic assumption that if they were able to give a worthwhile service, support would be automatically forthcoming. In actuality, such supposition has been so far unjustified. Union catalog authorities now realize that some concrete provision must be made for local support and, furthermore, that since local libraries are the chief beneficiaries, support should come from them. Only one union catalog has thus far tackled the situation with anything like a reasonable prospect of success. Authorities of the Westchester County Union Catalog have suggested that each library belonging to the system contribute two per cent of its book budget for the upkeep of the catalog. While not entirely successful in collecting this amount in every instance, the fact that such a proposal has been made by librarians to librarians, and that at least some of them have not only agreed to the proposition but have actually contributed the money, seems to show a way for other union catalogs to follow. The actual percentage of the book budget necessary in each case will naturally vary, but the proper source for this income seems to be correctly indicated.

Denver is facing the problem in a different way. "At a meeting of the Executive Committee . . . it was moved that the Director, in collaboration with the Chairman, allocate suggested amounts each of the sponsoring libraries might contribute to the support of the Center, and that these amounts be arrived at on the basis of use." There is, to date, no information as to the success of this scheme. Moreover, while the extent of use seems a logical enough basis for allocating contributions, it can be judi-

ciously applied only when the origin of every service call can be clearly established. Denver may not find the matter difficult, since most of its service is by mail. But where the telephone is the chief medium, as in Philadelphia, an appreciable proportion of the calls cannot be traced back to their origin. It would seem to be more in keeping with the real situation if support were allocated not only on the basis of use but also on the basis of ability to pay. In other words, contributions for support should be calculated on the basis of the annual book budget of the library, together with the amount of use made of the catalog.

PERMANENT STAFF

The prototype of the union catalog may be said to be the Expanded Library of Congress Depository Catalog. As these catalogs were originally considered only from the point of view of their bibliographical usefulness in local cataloging, order, and reference work, they are invariably placed under the administration of the catalog department. When, more recently, bona fide union catalogs began to be organized, the latter were considered to a certain extent in the same light. At any rate, since they are "catalogs," they became just another card file for the catalog department to worry about. Except in a few isolated cases, the problem of an independent staff has been ignored or distributed, on a part-time basis, among several departments. It is evident that with such a situation, there can be no question of a union catalog staff, much less of its duties and qualifications.

Six regional union catalogs have one staff member each. While in four of the cases there is WPA assistance available for the more clerical operations, in the other two the entire burden of both the upkeep and the service is in the hands of a single person. With one exception, these persons have been selected as catalogers rather than as reference librarians and administrators. Even here, the emphasis appears to be placed on the less important aspect of the union catalog, its physical rather than its functional side.

The Philadelphia setup is the only example of an attempt at real staff organization along functional lines. At the head of the staff is a Director who is responsible directly to the Executive Committee of the union catalog corporation. His duties consist chiefly of planning the policies and activities of the catalog, of explaining them to the Executive Committee and, after their approval, to the catalog's staff. He is also the executive officer of the union catalog, and it is he who maintains all public relations, representing the catalog legally and administratively. He is assisted by an Associate Director who is also the Bibliographer of the catalog, and it is this officer's duty to translate general policies into technical procedures. Since the union catalog is now being transformed into a bibliographical center, the Associate Director's chief concern at the present is to prepare and to amplify

the bibliographical apparatus of the catalog. In general, it may be said that his duties have to do chiefly with the technical and subject aspects of the union catalog.

All public service is in the hands of the Consultant. This officer is responsible for the use of the files, especially the location service. To a lesser extent, she is also responsible for the condition of the catalog, exercising a general supervision of the filing and the removal of withdrawals.

The fourth member of the staff is a secretary whose chief duty is, of course, to attend to all the catalog's correspondence. Her secondary duty is to assist the Consultant in the location service.

A fifth member is a Filer whose entire time is devoted to the cards contributed from time to time by cooperating libraries, and such other cards as are purchased from the Library of Congress.

Although it is not wise to lay down hard and fast rules about the qualifications of union catalog workers, there are certain points that may be emphasized. Since the union catalog has to do so much with the public, either by personal contact or by telephone, it is quite essential that staff members should have pleasing personalities and of the kind that inspire confidence. Under present conditions, it would seem to be of little practical importance to insist that union catalog workers should be library trained. Training is, of course, a decided advantage, but it does not by any means constitute the only requirement. In union catalog work, more than in almost any other library work, intelligence and a certain amount of scholarship count for more than anything else. This is chiefly because in a number of cases the union cataloger will not be in a position to give a direct answer to a question by reference to the files, but must think of ways and means of circumventing the shortcomings of the catalog. While doing so, it is essential that he should be able to maintain poise and to present his facts, or his lack of facts, in such a way that the caller will realize the situation and will accept the results without reservation. Of specific knowledge, it is important that at least one staff member should be a good linguist. Here again the mere fact that a person has studied a certain number of years a certain number of foreign languages does not mean very much. It is far more important that this knowledge should have less of the scholastic than of the practical. It is not particularly important that the union catalog worker should be able to decline certain Greek and Latin nouns; rather, he should be able to figure out the complicated phrasing of medieval titles, enough to determine the subject or, at any rate, the title of a book. French and German are absolutely essential, and some Latin as well. Knowledge of any other language is desirable, especially if it is of the kind for which non-Roman alphabets are used. Almost anything else that the union catalog worker may know will be useful at one time or another.

If the union catalog is part of a library, it is advisable to let all its service pass through the hands of one person. The allegiance should be entirely to the union catalog, and responsibility should be direct to the librarian rather than to some department head who would naturally be more concerned with his department than with the activities and problems of the catalog. The individual having charge of the catalog ought to be the medium, or point of contact, between any person wishing to use the union catalog and the catalog itself. This does not mean the staff member will have to look up every point of information himself, but it does mean that he ought to have a general supervision over the use of the union catalog. All the information about its use, and the problems of its upkeep, should be compiled in one place and by one person, and the facts should be presented together. This would show at a glance whether or not the union catalog justifies its existence, and what can be done to improve its service.

Since the union catalog as a branch of library service is still too young to have its definite standards and traditions, the scale of salaries is extremely varied. The highest known salary is \$3,500, while at the other extreme are salaries of \$900 per year. Since much depends on local conditions, it would be unwise to advocate definite salary scales. Nevertheless, the director's salary should not be less than that of a department head, since his duties are fully as exacting. The service staff may well be graded according to the salary scale prevailing for members of the reference department, and only the filer could be reasonably expected to work for about \$85 per month. The duties of the union catalog workers are fully as exacting and as complicated as those of the regular library staff and should be rated on the same scale.

BIBLIOGRAPHICAL APPARATUS

It is natural that the union catalog's major reference tool should be its card file. In many cases, this is the only tool. It is, furthermore, entirely adequate for the major service of the catalog, that of establishing the location of books. As has been already indicated, this file should be of the best bibliographical quality. For, apart from its major use of establishing the location of books, it should be also adapted to certain lesser services, such as authoritative headings, bibliographical verification of editions, etc.

It is difficult to state what should be the physical limits of a regional union catalog. The largest card file in the country is that of the Union Catalog of the Library of Congress. With its nearly 11,000,000 cards, it is almost three times as large as the largest regional union catalog, that of Philadelphia. It is doubtful, however, that any present-day regional union catalog will ever exceed 4,000,000 cards upon completion. The real problem is not so much the size as it is to keep the file in good condition. There is always

work to be done in adding new accessions, marking off withdrawals, checking on discrepancies of filing, and continually replacing worn and incomplete cards by better ones. Furthermore, there is much reason for improving the original author or main-entry file by providing supplementary entries for editors, joint authors, illustrators, translators and any other names appearing on the author cards. It is also desirable to provide title cards for fiction, drama, and poetry, and for anonymous works with authors supplied in brackets. The author approach, though most generally accepted, is not always interpreted in the same manner, and many failures to locate books must therefore be ascribed to the catalog's lack of other than author entries. This work of supplementing the main file with added entries is a major step in the improvement of its service potentialities and should be adequately provided for.

Certain union catalogs have thought it advisable to maintain supplementary files for certain types of material. Periodicals have been most generally segregated in such files.¹ There is much point in this if actual library holdings are given. The confusion which is almost inevitable when part of the cards are combined and part left with all duplicates present, is neatly avoided when periodical entries are filed in a separate catalog. Yet, since it is not always possible to define a periodical to the satisfaction of everyone, it may be worthwhile to maintain parallel periodical files: a one-card all-location entry in its proper alphabetical place in the main catalog, and a supplementary periodical file containing all entries without the elimination of duplicates.

Two union catalogs are maintaining supplementary files for foreign-language works. The reason seems to be chiefly one of convenience in serving a clientele of foreign extraction. General considerations of cataloging problems and service difficulties have forced one catalog to extract its cards in the Russian and the Hebrew alphabets, and to have them maintained in separate files under the general supervision of specialized departments in the library. Like treatment may be accorded all non-Roman alphabet entries, although the wisdom of depositing them outside the jurisdiction of the union catalog, as previously discussed, may be questioned. Mainly, perhaps because of the influence of the American Imprints Inventory, there are now union catalogs which maintain special supplementary imprint files for early publications, chiefly Americana. Cards in the imprint catalog are usually duplicated in the main union catalog.

Supplementary files compiled on the subject principle, such as those for bibliographies, dissertations, local history, regional and local authors, etc.,

¹ The treatment of periodicals is discussed at some length in the *Tentative Rules for the Union Catalog* prepared by the Joint University Libraries of Nashville, Tennessee. It is reproduced in full in Appendix G at the end of this *Manual*.

are more germane to the bibliographical center than to the union catalog proper. They will be discussed in another place.

Very few union catalogs have independent reference collections, and such collections as exist usually have to do only with the editorial needs of the catalog. Among the most generally useful reference works is the *Union List of Serials* and next to that the various Wilson catalogs and indexes. If serious editing is done on the basis of borrowed reference tools, the British Museum *Catalogue* and the catalog of the Bibliothèque Nationale may be recommended. At present, only the Bibliographical Center for Research in Denver has attempted to organize a systematic reference library of its own. The collection consists of all the important national bibliographies and as many subject bibliographies, catalogs, and general reference works as possible. The collection numbers about 8000 volumes. A similar collection, chiefly of subject bibliographies and of general reference works, has been started in Philadelphia and now numbers about 500 items. Without an independent reference library, the union catalog is at a definite disadvantage. It cannot hope to make full use of the reference possibilities of its location file, much less to extend its activities in supplementary fields.

The type of reference works most useful for a union catalog is largely the same as that used in a reference department. National and trade bibliographies and general reference works, such as encyclopedias, dictionaries, and directories, take first place. These should be supplemented with a representative collection of subject bibliographies, since the subject approach to the catalog depends entirely on the latter. Surveys of library resources, library handbooks, indexes of special collections, are likewise of much use. Even booksellers' catalogs and current accessions lists of libraries outside the région should be acquired systematically. All of them provide new approaches to the catalog, and their systematic checking for locations will reveal unsuspected richness as well as serious gaps in research material.

The bibliographical apparatus of the union catalog is augmented by the kind of records it keeps. In general, three kinds of records are necessary: (1) compilation, (2) maintenance, and (3) service. Compilation records are necessary, in the first place, to indicate the libraries included, both as to their size and quality, and the number of volumes which make up the union catalog. Second, it is necessary to keep a careful record of card production, whether this is by straight typing or by photographic means. When cards are ready for filing, it is necessary to keep track of the actual number of cards filed, not only by each filer but also from day to day. This is important, among other reasons, in order to determine how large a filing force may be necessary for the current accessions once the original compilation is finished.

Records that have to do with maintenance should indicate the number

of cards received from each library, the frequency of cards being received, and the speed of filing and editing as the cards are incorporated in the main file. It is also important to keep a record of withdrawals as they are reported and eliminated from the main file. In fact, this recording of accessions and withdrawals should be made from week to week so that the actual status of the catalogs is always ascertainable. It is also worthwhile to keep comparative statistics on the amount of duplication. If possible, this should be done for the original file as well as for new accessions. It is only when all these records are available and thoroughly analyzed that it is possible to give a résumé not only of the physical growth of the catalog but also of the extent of duplication and unique material added from year to year. In the same group belong figures on the cost of running the catalog. These figures would usually be divided into three main categories: staff salaries, equipment, and incidentals.

Finally, detailed records ought to be kept of the actual services of the catalog.² These records should give information on the number of inquiries and the number of items per inquiry, the number of successful answers and the number of failures. It should also indicate the source of inquiries; that is to say, it should present a classification of the person or institution whence an inquiry originates. At the same time, there is much point in giving a subject analysis of the inquiries. This is chiefly for the purpose of helping to determine the research needs of the community, and also to bring out the strong and weak points of the catalog itself. While it may be sufficient to present all successfully answered inquiries in statistical form, it is of great value to have unsuccessful inquiries or failures recorded in detail. These records should be made available to the contributing libraries as an aid to planned purchasing.

Equipment for a union catalog after the compilation is not a serious item. If trays have been provided at the start to take care of all the copied cards, with space enough for perhaps 200 cards more in each tray, the combining process will leave them half-filled. Thus there will be enough tray space available for the next 10 or 15 years of continuous growth.

The catalog room should be provided with good lighting so that the consultation of the trays is always in proper light. Long and narrow tables should be provided for the consultation of the files, and it is advisable to have several telephones placed in various sections of the room. The telephone line, if possible, should be independent and direct to the catalog. Nothing is more annoying to the prospective user than to find the line busy or to be required to go into long explanations to the switchboard operator before being able to reach the catalog.

² Forms of records used for the analysis of inquiries are reproduced in Appendix H. The Philadelphia form is used for monthly periods, the Denver form is used for separate questions.

Each staff member should be provided with a working desk of the usual office type, and at least two typewriters should be available for the use of the staff. Since reports and correspondence must be kept for ready reference, modern files should be provided for them. Bookcases for the reference collection should be near the desk of the chief consultant, together with such other supplementary files and indexes as the catalog may have. A table for their consultation is also advisable.

The lesser equipment consists of note paper pads for the jotting down of references and requests received over the telephone, as well as stationery, various printed forms, lists of instructions, processing slips, pencils, etc. Films should be clearly labeled and arranged in a special film cabinet. A desk and a film reader should be placed nearby to permit quick consultation. A stock of catalog cards, several thousand in number, should be available at all times, and a less extensive stock of the various types of guide cards used by the catalog.

GROWTH OF THE CATALOG

After the original cardstock is filed, the catalog depends for its growth on voluntary and periodical shipments of cards from the contributing libraries. It must be emphasized that the reporting of new accessions should be put on a standard and well-regulated basis. It is well known that even in the individual library, cards for a book do not reach the catalog until a week or more after the book has been acquired. It is natural that still more time should elapse before the cards reach the union catalog, and it is understandable that unless and until the card is filed in the union catalog the existence and the whereabouts of the book it represents cannot be established. Only after it is known that the book is available in some library in the community can it be consulted. Consequently, it is essential to have new accessions reported as soon as possible. The best that has yet been done in this direction is that some libraries in the case of two or three union catalogs have agreed to report accessions regularly once every fortnight. Most libraries, however, report only once a month, or less frequently. There are even libraries which have made no effort to report accessions since their files were originally copied, and these may be well considered, from the standpoint of the union catalog, as inactive libraries for all current material.

No effort should be spared to secure the prompt reporting of new accessions from all libraries. On this depends not only the catalog's ability to supply locations for current material, but also the continuous and smooth distribution of labor in the filing of the cards. It is particularly annoying to have several thousand unorganized cards arrive at one time, and to have at other times weeks during which no contributions are received and the filer has nothing to do.

Contributing libraries would perform a real service to the union catalog if their accessions were sent not only at regular intervals but also arranged in proper alphabetical order. When they arrive in unorganized condition, the filer must drop all current work and set to arranging them immediately.

According to information received from four regional union catalogs, the annual growth of the catalog varies from two to six per cent of the total number of cards in the original file. If the catalog numbers several million cards, and includes over a score of libraries, direct filing into the main file is not advisable. The time necessary to file 100 cards into a catalog of 3,000,000 cards distributed from A to Z is approximately twice as great per card as it is for the same number of cards taken from a supplementary file of, let us say, 25,000 cards. This is easily understood when we consider that in the former case, theoretically, one card is to be dropped in every tenth tray, while in the latter case as many as five or six cards may be dropped in a single tray.

For this reason, it is advisable to maintain a supplementary file of new accessions, and filing into the main file should be undertaken only when the supplementary file reaches about one per cent of the main file. Since it is hardly ever possible to be up-to-date in filing, and since for that reason there is always the possibility of having to consult two files, it really matters very little whether the supplementary file consists of only a few hundred cards or of several thousand.

Editing and combining should be undertaken at the same time as the filing of new accessions, although these operations slow down the filing speed approximately one half. If this procedure is followed, it will actually be possible to maintain certain parts of the catalog as permanently edited, whereas if filing is undertaken without the necessary editing, there will always be cards needing further attention. Since this editing is, in the nature of things, a second editing and will not affect more than perhaps one or two per cent of the cards, it would be concerned for the most part with the substitution of current cards of good quality for older ones of questionable merit. Frequently in the case of cards for entirely new items, no real editorial problem will arise. The cards would be merely dropped in their appropriate places. Furthermore, a careful scrutiny of the cards themselves will soon reveal which library's contributions may be accepted without question. In this manner, the editorial process may proceed quite automatically and should cause no special difficulties, except in a few isolated cases for which expert interpretation may be necessary.

There is a tendency to regard duplicate cards as a necessary evil. This is undoubtedly partly correct, but since it is an almost unescapable situation, there is no reason why this apparent waste material could not be put to some use. One way of utilizing duplicate cards is to use them for a subject index.

This can be done fairly easily if the catalog contains either a complete set of Library of Congress cards or a fairly large number of such cards. In that case, classification numbers would be copied on the corresponding duplicates and the whole arranged in a classified order. A somewhat less desirable result, but of a more popular kind, could be obtained by placing a subject heading on each duplicate card, again on the basis of the Library of Congress cards. It is true, of course, that since only about 50 per cent of the titles would have duplicates, a subject index thus prepared would be very incomplete. With this in mind, it may not be advisable to undertake a general subject index, but rather to limit the index to some particular subject, such as bibliography, general reference works, biography, local history, imprints, periodicals, etc. Although no one has yet tried to do so, there would also be considerable advantage in arranging the duplicate cards, alphabetically, by title only. This would be of much aid in the identification of anonymous works and in replying to the many requests for works by title only.

Whatever objections there may be against the use of duplicate cards for indexes, which, at best, will always remain partial, no such objection can be raised against the use of the duplicate card for added entries. The fact that not all cards will have added entries, is no argument against providing as many of them as possible. Furthermore, this is the kind of work in which all staff members can participate whenever time is available.

At the time arrangements are made for reporting new accessions, union catalog authorities should also impress on the contributing libraries the importance of sending regular notification of books withdrawn from their shelves or otherwise made unavailable for consultation. Since not many books are withdrawn or lost and therefore will not involve much searching, short title lists may be accepted in lieu of cards. However, whenever possible, withdrawals should be reported by sending the actual cards representing them, either main entries from the public catalog or cards from the shelf list. In general, it must be stressed that it is always to the advantage of the union catalog to have any records submitted to it singly and on separate cards or slips. They may thus be easily handled by the less experienced members of the staff.

The actual procedure of indicating withdrawals is fairly simple. The only process necessary is a line drawn through the location symbol of the library concerned as it occurs on the card. Some union catalogs withdraw the card from the file if it happens to be unique. It is advisable, however, not to withdraw the card itself, but merely to cross out the location symbol. The cards may very well serve other bibliographical purposes, such as authority for the author's name, imprint, etc., and so may prove of some use even when the book it stands for is no longer available.

UNION CATALOG COOPERATION

The regional union catalog not only serves its own clientele, but also should feel under obligation to serve, within its ability, the research needs of the nation. To do this, it will have to establish close relations with the great National Union Catalog of the Library of Congress. Since the national union catalog is compiled and administered for research purposes only, it is interested in locating at least one copy of all important research books throughout the country. The regional union catalog may contribute materially to that aim by reporting its more valuable and unique material. Providence and Philadelphia send sections of their catalogs for copying and incorporation in the National Union Catalog. The catalog of the American Imprints Inventory is likewise being incorporated in the national catalog. Smaller union catalogs are not in a position, perhaps, to add many items to the national catalog, but it may be worthwhile to report unique items, especially foreign research works, whenever there is reason to believe that no other libraries possess them.

The National Union Catalog issues weekly circulars of unlocated research works. These lists are sent to some 50 important libraries and a few union catalogs. Prompt reporting is always a matter of course. On their part, certain regional union catalogs also issue search lists, and the National Union Catalog is always ready to check them. Although libraries, as a rule, still prefer to do their own searching, some of the smaller libraries and most individuals are increasingly asking this service of the union catalog. Denver circularizes any request when the item cannot be located in the catalog; Philadelphia does likewise only when the inquirer requests it, or when the book itself appears to be of sufficient interest and value to warrant extensive searching. Both catalogs have a regular list of libraries which are circularized as a matter of course, and both avail themselves of the facilities of the National Union Catalog.

PUBLICITY

Although there is considerable literature dealing with the union catalog, its problems and its services, this literature reaches only a small part of its potential users. Such articles as have been published have appeared almost exclusively in professional library publications and are easily available only to librarians. Scholars, students, research workers of all types, and the general public, while they may be reasonably well informed about the services of a library, have but slight knowledge of the union catalog. And yet, it is equipped to serve them as no other institution can.

Outside publicity in the form of newspaper write-ups is hard to obtain, and unless revised or even prepared by the staff, is usually erroneous. In the case of one catalog, a reporter called and obtained an interview with the

Director. The interview was submitted for revision and passed with some changes. The next day, unknown to the staff, a photographer came to get certain action pictures to illustrate the article. Not knowing the location of the catalog, and disdaining to ask, he took several pictures of the catalog department of the library in which the union catalog was housed, and departed. Two days later a feature article appeared on the union catalog, splendidly illustrated with action pictures of catalogers filing cards and answering telephone calls in an entirely different institution!

In the union catalog's own publicity, first place must be given to the descriptive leaflet. Only Philadelphia has so far issued such a publication in printed form, and in large enough edition for general distribution. This leaflet was mailed to all librarians in the city, and to selected groups of professors and professional men. The annual report is an excellent medium for popularizing the catalog, but thus far its possibilities have been generally overlooked. Some facts about the union catalog usually appear in the reports of libraries with which the catalogs are connected, but who reads library reports except librarians? Those catalogs which have prepared their own individual reports have not printed them, and their circulation is usually limited to the contributing libraries and to the sponsors. When individual reports are prepared, they should be reproduced in quantity for general distribution. It is a decided advantage to prepare the reports in a somewhat informal style. In any case, they ought to emphasize the saving in time and money effected by means of the catalog.

A regular bulletin in mimeographed form may be issued with comparatively little trouble and at small cost. The daily work of the union catalog presents enough material for the purpose. There is also the advantage of having a chance to remind lax libraries that the union catalog is still in operation and that cards are always welcome.

Philadelphia is advertising its services to all library users by means of a special card³ inserted in every catalog tray in most of the libraries contributing to the union catalog. In a somewhat indirect manner, the catalog has obtained useful publicity by a series of publications of professional interest. It is always possible for the union catalog to issue local checklists of authors and subjects, and of these Denver has several examples. Such publications not only reflect credit on the catalogs concerned but also emphasize quite clearly the not generally recognized fact that union catalogs are reference tools of considerably broader function than the mere location of books would indicate.

³ A sample of this card is reproduced in Appendix J.1, p.340.

CHAPTER 24: *The Bibliographical Center*

SO FAR ONLY UNION CATALOGS HAVE BEEN DISCUSSED, WITH SOME ATTEMPT to indicate certain fairly well-established phases of their administration. Of recent years, however, the situation has become somewhat confused by the introduction of a new agency or, at any rate, a new name which in certain respects stands for the same thing as the union catalog. In Denver the union catalog is not considered an independent agency, but rather as an integral part of a "bibliographical center." In 1940, the Pacific Northwest Bibliographical Center was inaugurated in Seattle, although the first activity of the Center, still uncompleted, was the compilation of a union catalog. In Philadelphia the Union Library Catalogue has, at least temporarily, become part of a new organization known as the Philadelphia Bibliographical Center and the Union Library Catalogue. Considering these organizations together, one fact emerges beyond dispute: the union catalog in each case is subordinated to the center idea. The center is thus something broader, something more inclusive, than the union catalog per se.

A bibliographical center at the present stage of its development is not amenable to a satisfactory definition. The concept is still too new and untried. It is therefore less correct to describe it on the basis of what it does than on the basis of what it intends to do. In general, a union catalog deserves its name when it performs the functions of a location file. When, however, it is used for other and more advanced cooperative purposes and when the staff comes to look upon it as only one of several sources of information for their work, the union catalog is clearly subordinated to a broader service concept. We may thus say that if only location service is performed, the organization may be properly described as a union catalog, but that if other services are added requiring special knowledge and additional reference tools, the organization is a bibliographical center, or, at any rate, on the way to becoming one.

DEVELOPING SUBJECT APPROACH

One of the first concerns of the bibliographical center as contrasted to the union catalog proper is to find ways and means of providing the catalog with a subject approach, or at least of implementing its purely author ar-

angement by indexes and supplementary files developed on the basis of subject matter. Except in the case of one or two small subject union catalogs, no one has yet undertaken to compile a complete subject index to the main file, either by use of subject headings or a classification scheme. The possibility of using duplicate cards for this index has been previously alluded to, but the difficulties are too considerable to warrant such an undertaking. Philadelphia began an experiment in this direction, but decided to abandon it partly because of disagreement as to method and partly because of the lack of provision for the adequate treatment of those entries for which no duplicates were available.

While there are great obstacles to be overcome in the compilation of a general subject index, there are no such problems in the compilation of an index to special collections and subject concentrations. When the resources of local libraries are surveyed to determine inclusions for the union catalog, much information is simultaneously accumulated. When properly organized, these data present a fairly thorough conspectus of the relative strength and distribution of subject groups. There is no reason why this information should not be recorded in a systematic manner to be used jointly with the catalog proper. In Philadelphia, two forms¹ have been developed for the recording of these facts, one to be used for the library, the other for the subject or special collection. Forms for the libraries are preserved in a loose-leaf folder, the forms for special collections and subjects are arranged both by subject and by class in a separate card index. While this index is primarily intended for the resources of local libraries, it is equally adapted for the recording of any collection anywhere. Information for collections outside the area is therefore systematically added to the file whenever obtainable.

Next to the ability to show what material there is on a given subject is the ability to indicate where such information may be obtained. Among the best sources are, of course, subject bibliographies. If, therefore, it is not possible to provide the entire union catalog with a subject index, it is valuable to attempt an index of subject bibliographies. One may do this by affixing location symbols to the entries in such a work as Mudge's *Guide to Reference Books*, or by compiling a special file of subject bibliographies. The latter procedure is to be preferred because Mudge is quite selective and does not permit of rearrangement. The Union Catalog of the Library of Congress has a "Catalog of Bibliographies," under subject headings, numbering 17,000 cards. The Union Library Catalogue of Philadelphia maintains a "Subject Bibliography File" of 35,000 cards in classified order according to the Z Class of the Library of Congress, but in a somewhat expanded and otherwise modified form.

¹ Samples of the two forms are reproduced in Appendix J.2, 3, p.341-42.

Without attempting to disparage the efforts of compilers of subject union catalogs, considerations of economy and service indicate that such catalogs would be more useful if compiled as supplements to regional union catalogs covering certain subjects in inclusive fashion. Though providing a subject approach to only a part of the regional union catalog, they would serve a somewhat smaller clientele more effectively than a subject file attempting to cover all fields. In any case, the various subject indexes and supplementary files of a union catalog all partake of the qualities of subject union catalogs, and the more these collections are developed, the nearer the union catalog approaches the bibliographical center idea.

INTERLIBRARY LOANS

While the union catalog helps to establish the whereabouts of a book, it does not attempt to obtain the books for the borrower. This service is more appropriate to the bibliographical center. No center, however, has yet devised a plan generally acceptable to the contributing libraries. In Denver, every request for a location is understood as tantamount to a request for a loan, and the Bibliographical Center acts as an intermediary. But even here some libraries prefer to make their own arrangements, and there is always the problem of the individual borrower. In Philadelphia, a special committee of librarians has been engaged upon a simplified code for interlibrary loans, applicable to the libraries within the area, but here even less progress has been made.

At present there are only two successful arrangements for interlibrary loans and although in both cases there are union catalogs, arrangements have been worked out by direct negotiation between the libraries concerned rather than through the medium of the union catalogs. The Joint University Libraries in Nashville do extensive lending and maintain a special messenger service. It must be remarked, however, that though the libraries maintain their individuality, they are under one director. The case of Duke University and the University of North Carolina is a more far-reaching arrangement. Notwithstanding the fact that both institutions are absolutely independent of each other and, moreover, ten miles distant, they maintain a daily messenger service, with practically no restrictions as to mutual book loans. It is on a system of interlibrary loans following the pattern of the Duke-North Carolina arrangement that the bibliographical centers are now concentrating.

COOPERATIVE BOOK SELECTION

The bibliographical center can do much to promote cooperative book selection provided there is sufficient interest among contributing libraries. One method is for the union catalog to check standard and up-to-date sub-

ject bibliographies and other general reference works, noting all the important research publications not available in the community. From time to time, want lists for special subjects would be compiled and submitted to groups of libraries primarily interested in these subjects. The libraries would then agree among themselves as to which of these books, if any, should be purchased. Lists of unlocated items based upon actual requests could be prepared for the same purpose.²

Another way of approaching the problem is for each library to send to the center, from time to time, lists of important research works which they wish to purchase or which they consider important enough to be available in at least one copy in the area. If, for instance, all contemplated purchases above a certain amount—\$50, let us say—should be reported to the center, it could maintain a file of these desiderata, and either issue lists of these items at stated intervals for the information of all libraries or notify only those libraries intending to purchase the same book. The decision to purchase will be left, of course, to the libraries interested.

A scheme going considerably beyond that outlined above, and which, furthermore, has the advantage of being in actual use, is outlined in a *Memorandum Re Interlibrary Cooperation* prepared by the Catalog Department of the Enoch Pratt Library of Baltimore. Because of the concrete and lucid manner in which the procedures are described, it is reproduced here in full, omitting only the names of persons.

MEMORANDUM RE INTERLIBRARY COOPERATION

On April 1, 1939, we wrote to the librarians of Johns Hopkins, Goucher College and Peabody concerning the feasibility of our making extra sets of cards for some of the more important and specialized books which the Pratt was getting and which they might not wish to duplicate if they knew we were getting them.

The replies from this letter indicated that the preparation of the catalog cards is a matter of routine which could hardly be justified.

Instead, the practice outlined below will be followed by the Pratt, with the sole purpose of providing the other libraries with information of which they will make such use as they think best.

(1) When expensive and specialized books are checked by the department head or librarian for order—books which would be of interest in any one of three other libraries—a symbol consisting of a small rectangle will be put at the check mark.

(2) The Order Department typist will make a special card of this title in as

² The union catalogs of Philadelphia and Westchester County compile such lists of desiderata. Philadelphia prepares the lists every three months and distributes them among the contributing libraries, assuming no responsibility for further action. Westchester County prepares monthly lists which are thoroughly discussed and acted upon at monthly meetings of the Westchester Library Association.

nearly correct catalog form as she can and immediately show it to Miss M. with the source of information.

(3) Miss M. will have four cards made out in satisfactory cataloguing form, using cards of special blue stock with an open punch hole, so as to be easily inserted, if so desired, in the catalogs of the other three libraries. These cards will have printed at the bottom the statement that "This book is being bought by the Enoch Pratt Free Library," and the date on which the typist makes out the cards.

(4) Miss W. will forward these cards to the respective libraries every few days, promptness being one of the elements in this procedure, so that the other libraries will be immediately notified of our decision. The fourth duplicate of each set will be held by Miss W.

(5) When there is a question in the mind of the checker whether the Pratt Library or some other library should purchase a book, he will use the rectangle symbol but place a question mark after it. In that case the information will be sent to the other libraries not on a 3 x 5 card but on a double return postcard with the return portion self-addressed to the Pratt. At the top of the portion we use for listing the book, the following words will be printed: "We are contemplating the purchase of the book listed below but perhaps shall not get it if you decide to do so. May we ask you to let us know on the return portion of this card whether you expect to buy this book? The Librarian, Enoch Pratt Free Library."

The purpose of the foregoing procedures is to communicate with the other libraries about the decisions as to which library shall purchase the book, and in the case of those which we think we must have any way, to notify the others so that they may avoid duplication if they so decide.

J. L. W.

COOPERATIVE Book PURCHASES

The Oregon State System of Higher Education maintains a cooperative book-purchasing agency through which orders are placed for all books purchased by the six cooperating libraries. In a general way, this scheme provides that all orders for books should be sent to a central order department at the Oregon State College. The department checks every order in the union catalog to determine whether or not the book is already available at one of the libraries. If it is available, the library placing the order is notified to that effect and a loan is arranged if desired. If, on the other hand, the library still feels that it is necessary to own the book, it merely reaffirms its order and the central order department forwards it to the jobber. Books and bills are sent directly to the library ordering them for verification, but, after being approved, bills are returned to the central disbursing office where all payments are made. Until the book is cataloged, a duplicate order card is kept in the union catalog to indicate the fact that an order for it is outstanding. When the book is received and cataloged, the order slip is replaced by a permanent catalog card. If, however, no card is sent for the

book for the space of 18 months, the union catalog orders one from the Library of Congress. If no printed card is available, the union catalog requests the recalcitrant library to prepare one at once.

After a good deal of agitation and considerable study, the Bibliographical Center in Denver has prepared a rather comprehensive scheme of cooperative purchasing whereby the libraries of the region would purchase their books through the offices of a single jobber. Since the orders will amount to a considerable sum of money, substantial discounts may be expected. The Center does not obligate itself to act as a clearing house for the orders, but takes the initiative in negotiations leading to specific agreements. By organizing the libraries and by persuading them and the jobber of the feasibility of the plan, it is performing a notable service in practical library cooperation.

COOPERATIVE CATALOGING

Improved cataloging standards are always noticeable whenever a union catalog has been functioning in an area for some time. While catalogers may not be especially concerned in either cooperating or in changing their usual systems of cataloging for their own purpose, they do come to realize after a time that consistency and a fairly close following of well-established cataloging rules and practices is necessary in order that their cards may be easily incorporated in a union catalog. Uniform methods and a respect for detail are thereby encouraged. This, however, is merely a passive way of influencing cooperative cataloging.

The union catalog, naturally the largest catalog in the area, is in a position to supply catalogers with certain necessary information not easily obtainable elsewhere. In the first place, a union catalog possesses a larger number of completely identified authors than any contributing library. Such information is available to any one requiring it, just as are data about the location of books. Second, practically all union catalogs have a large or small number of Library of Congress cards, and since the number increases from year to year, the union catalog is in a position to supply the details usually appearing on Library of Congress cards: contents, notes, classification, subject headings, and order numbers. All this aid is valuable and, in the case of the smaller library, very often not available without a considerable outlay of money and effort. Since the union catalog is a kind of leveling instrument, being both better in a bibliographical sense than the indifferently cataloged libraries and somewhat less perfect than the well-cataloged ones, it follows that libraries not adequately cataloged may accept most of its entries as definite improvements on their own practice. Realizing this fact, one library in Philadelphia is now being entirely recataloged by the simple process of copying the union catalog cards for its holdings. In view

of the fact that nearly 80 per cent of its collection is also found in better catalogued libraries, the advantage of obtaining better cards for that proportion of its catalog is considerable.

The bibliographical center, because of its recognized role as coordinator, is the logical agency to organize cooperation in cataloging of an even more direct kind. Libraries may agree to maintain a central cataloging office with the necessary staff of specialists to deal with difficult cataloging for all the libraries of the area. If this plan is deemed too expensive or too uncomplimentary to the regular catalogers, the center may persuade certain of the better-equipped libraries to accept responsibility for preparing catalog cards for certain types of difficult material in which they have unusual facilities. A large university library may undertake, for instance, the cataloging of all foreign dissertations. Another library, with extensive experience in early Americana, may do a similar task for American imprints of uncertain authorship. Analyticals for long series should be treated in the same manner. The center, on its part, would supervise the allocation of fields, would investigate the need for such cards, and would finally arrange for their duplication and distribution. Thus, an operation formerly performed by several libraries with indifferent success would then be attended to by specialists, with the results available to all.

FIELDS OF CONCENTRATION

By means of its index of special collections and by special surveys which may be undertaken under its direction, the bibliographical center is well equipped to promote a planned acquisitions policy leading to special fields of subject concentration. Since the necessary information for the allocation of fields is generally already available, there is only one real obstacle to be overcome: the survival of a spirit of self-sufficiency in a world order increasingly more dependent upon collaboration and the sharing of specialized knowledge and resources. The problem is one of acquiring the habit of thinking and planning in terms of areas, regions, and the country as a whole, rather than in terms of one's own library and clientele. It should be even possible to plan, without undue heightening of the blood pressure, the liquidation of a library, or the transfer or loan of part of its collection to another library equipped to make better use of it.

Neither the union catalog nor the bibliographical center aims to do the work which is now well performed by reference librarians in their individual libraries. The goal is only to encourage specialization and thoroughness. The ideal foundation for a bibliographical center would be 10 or more strong, well-equipped libraries undertaking to divide among themselves the major interests of research and to act as clearing houses for those fields. A supplementary measure would be to maintain directories and files of subject

specialists and research workers, and a record of research in progress for each field. The center is an agency for the seemingly contrary purpose of decentralizing research and service by encouraging specialization in all activities best performed by the individual library.

THE BIBLIOGRAPHICAL CENTER AND THE NATIONAL UNION CATALOG

The regional union catalog differs from the Union Catalog of the Library of Congress chiefly in scope. The National Union Catalog is larger in size and serves a much more extensive clientele. The chief service of both, however, is the location of books. The bibliographical center, on the other hand, performs services which the National Union Catalog could manage only with difficulty, not for lack of experts and equipment, but because of the enormous size of the country and the variety of resources and needs of particular areas and regions. Unlike the regional bibliographical center, the union catalog of necessity must remain a passive source of cooperation for the majority of smaller libraries. Such catalogs contribute little to national book resources as a whole, while the percentage of their unique and important holdings should be measured by regional standards. To divert at least part of the enormous service load from the National Union Catalog and the large research libraries which it chiefly represents, the need for regional union catalogs and bibliographical centers is easily justified.

Although the eight million individual works represented, according to Mr. Schwegmann's computations, in the National Union Catalog, may include most of the important research works in the country, the location of copies is seldom exhaustive. In terms of the entire country, two or three locations may be all that are needed. In terms of a region, the problem is different. Why should a library in Denver, for example, have to borrow a book from Harvard or John Crerar if other copies are available in smaller libraries nearby? The case for the regional catalog becomes even stronger when we consider that of "a list of fifty libraries whose contributions, until now, represent either the most extensive or valuable additions to the Union Catalog," only 22 are represented in regional union catalogs, and only 10 of these completely.

In matters of local library cooperation and improved service, only a regional center is in a position to bring about important results. The National Union Catalog only acts when requested, whereas the center not only can but actually is expected to take the initiative. The activities of the center are so closely identified with local problems that it cannot easily be overlooked in the consideration and solution of these problems.

CHAPTER 25: *Special Aspects and Problems*

FROM TIME TO TIME QUESTIONS HAVE BEEN RAISED AS TO THE WISDOM OR expediency of certain practices connected with the compilation and administration of union catalogs. An attempt to answer some of the questions has been made in the preceding pages. There are other questions of a purely academic nature not requiring discussion. Three problems, however, because of their recurrent nature, should be dealt with briefly at this point. They have to do with the labor problem, the physical form of the catalog, and the regional versus the subject union catalog.

THE LABOR PROBLEM

A Latin-American librarian visiting the Union Library Catalogue of Philadelphia, when told that as many as 135 people had taken part in the compilation of the catalog, expressed great surprise at the organizational problems which must have been encountered. When further informed that all but 10 of the staff had been WPA workers with no previous library experience, he was at first unwilling to believe it, but finally conceded that by careful planning and expert supervision it may have been possible. To those who have actually participated in such work, the feasibility of using untrained clerical labor does not need to be demonstrated. While it is undoubtedly true that people on relief are apt to hold professional pride somewhat at a discount, this defect disappears when they are made to realize that they are participating in something really constructive and valuable.

Since most of the work during the compilation stage is purely clerical and may be, furthermore, reduced to largely mechanical motions, little more than adaptability is required. The work consists, for the most part, of typing and filing. The typing is seldom more than an accurate recopying of catalog cards in accepted style. Almost any person able to type can perform this task successfully. Such difficulties as may arise concern the abbreviation of overlong titles or the necessity, occasionally, to interpret an antiquated form of entry, but these cases are usually left to the supervisors.

The filing procedures are a little more complicated. Those who have done business filing have much to unlearn before they can become dependable filers according to library practice. Their habit of following the word-

by-word system is a source of endless confusion unless checked at the very beginning. As is natural, younger people learn more easily, especially as they have fewer preconceived ideas about the work. A sound rule to follow is to treat every filer to a mild course of instruction without regard to claims of previous experience.

The supervisory staff should consist of persons with library training or, at any rate, with a certain amount of actual library experience. For the typing process one supervisor to every 10 typists is sufficient. The filing needs less supervision, since the whole work is to be revised at the time duplicates are eliminated. Patience and an ability to explain are the chief requirements for a supervisor.

Relief labor is well adapted for both fundamental operations. Union catalogs have found it comparatively easy to obtain the necessary WPA help, partly because the projects themselves have always been favorably regarded by the federal officials, and partly because, until recently, white-collar workers of clerical grade on relief rolls were not lacking. The quality of worker obtainable in the past several months, however, has greatly deteriorated and there are indications the situation may become even worse. Consequently, union catalogs about to be started should not count overmuch on obtaining adequate WPA help. It is even possible that no help whatever will be available until, and unless, the relief rolls are greatly enlarged.

The open labor market, however, has no shortage of qualified and willing typists and filers, provided the union catalog is able to hire them. The rate of remuneration may be set at an even 50 cents per hour for both typists and filers. The rate of professional supervisors will have to be at least 75 cents per hour or higher. Some union catalogs have availed themselves of the NYA for occasional help for such operations as filing, checking of withdrawals, and elimination of duplicates. All these tasks are well adapted to sporadic attention, but it is likewise clear that no union catalog can function properly if it has to depend entirely on assistance of this type. The regular staff must still be equal to all current activities.

THE FORM OF THE CATALOG

Why should a union catalog take the form of a card file rather than that of a book or a film strip? Simply because it has been found to be both more convenient and less expensive.

Leaving consideration of the National Union Catalog aside, what would happen if the 18 regional union catalogs should be published in book form? There would be 18 separate sets of author catalogs ranging from three to perhaps 20 volumes each. No more than a dozen libraries would be able to purchase them. The advantage to the smaller contributing libraries would be nonexistent. They could not purchase the necessary sets and would still

have to turn to the central office. Quite apart from the enormous amount of editing involved and the expense of publication, a printed union catalog will not entirely replace the original card file. The union catalog, like any other catalog in a functioning institution, is a growing organism. Books are added continually, and current accessions, especially periodicals, are often more in demand for research purposes than are older materials. A central office with a card file is therefore inevitable.

It is undoubtedly much less expensive to reproduce a card file on microfilm than to print it. Union catalogs thus reproduced could be made available in a larger number of libraries than printed sets. But, just as in the case of book catalogs, microfilm copies must be kept up to date by current card files. It has been proposed that supplements in film or in book form should be prepared annually or at five-year intervals. To have to consult both the main film and one or more supplements may be all very well if the searcher has sufficient time at his disposal. For telephone requests, however, the delay is quite annoying.

The one undisputed advantage of the book and the film is the small space they require as against the thousands of trays necessary to house a union catalog on cards. The chief disadvantage of book and film is that they are, by their nature, always out of date. Furthermore, they somehow encourage the erroneous view of the union catalog as being essentially the same as a union list. This conception is the very opposite of the union-catalog idea which is based upon the conviction that a central file of locations for research materials is the basis of a new agency for library cooperation, and that such an agency must be administered by a staff prepared to encourage and to promote regional self-sufficiency. It postulates an active and even an aggressive policy which can be expected only of a special staff engaged for the purpose. The catalog per se, as a repertory of cards, becomes an influence only when it is animated by a policy clearly conceived and promoted with force and conviction.

THE SUBJECT UNION CATALOG

Subject union catalogs, such as we have, are for the most part local in scope. Chicago, which appears to take the lead in the number and variety of its subject union catalogs, has catalogs for medicine, fine arts, law, the Negro, and Jewish literature. All these catalogs are limited to libraries in the city, and each of them covers less than 10 libraries. The same is largely true of subject union catalogs elsewhere. Except for the seven catalogs of national scope (Directory, Nos. 21-27), the services of the usual union catalog are almost exclusively local.

While their area is usually determined by the location of special libraries and collections within their chosen subject, the definition of the subject

itself is attended with considerable difficulty. In the case of the Union Catalog of Law Books in the Chicago Area, the problem of a definition was ignored. It was decided to include all material found in the law libraries to be copied, whether strictly dealing with legal subjects or not. On the other hand, material for the union catalogs of fine arts and of the medical sciences was compiled on a more purely subject basis. The choice of entries to send to the medical union catalog was left to the decision of the contributing library. A further check of contributions was made by the person in charge of the catalog. Although this is both the oldest and the largest subject union catalog, it is clear that it has been compiled and is being added to in a somewhat individualistic manner. There is no question that all bona fide medical works in the contributing libraries are to be found in the catalog, but there is reason for doubt as to how thoroughly the large number of related and borderland subjects are covered. This, however, is the stumbling block of all subject union catalogs.

When the subject is fairly well defined, that is to say, when it corresponds to a class or a subclass of the Library of Congress Classification or of the Dewey Decimal System, limitation of material to be included presents no special difficulties. All cards bearing a certain classification symbol, or symbols, are searched and copied. Here the process of selection is largely automatic. The shelf list is best adapted for such copying, because the cards to be copied will be found together. Shelf-list entries are not as a rule, however, as detailed as main-entry cards, and it may be advisable to go through the dictionary catalog rather than the shelf list. The classification symbol is the guide for the chief material; borderland books may be identified by subject headings.¹

If the subject union catalog is to remain, as is the usual custom, a simple author file, the amount of detail to be copied is the same as for a general union catalog. Author, title, imprint, and pagination are sufficient. If, on the other hand, it is planned to prepare an additional file in subject arrangement—classified or under subject headings—it is necessary to copy the classification symbols and/or the subject headings as well. The Union Catalog of Law Books in the Chicago Area is preparing a supplementary file of entries under subject headings. For this purpose Library of Congress headings are used, either by direct copying from main-entry cards, or by assigning headings from the *Subject Headings Used in the Dictionary Catalogs of the Library of Congress*. In any case, uniformity of interpretation and consistency in application are of the utmost importance.

Because of the usually small size of the catalog and the necessity for

¹ An excellent *Manual of Procedure* has been prepared as a guide to the compilation of the Union Catalog of Art Books in Chicago. It is so apt and so well adapted to the needs of subject union catalogs in other fields that, rather than to cover the same points anew, this *Manual* is reproduced in Appendix K.

selecting the entries, large-scale copying procedures are not well adapted to subject work. The unit cost of filming the cards increases considerably, because of the unavoidable slowness of the process. Direct copying by hand or by typewriter is therefore to be preferred, especially as this arrangement permits constant and close supervision. The purchase of a Library of Congress card set for the catalog's subject is highly advisable. It is, in fact, even more essential than for general union catalogs. Such a set will not only serve the general purpose of a basic file, but will also considerably lighten the task of selecting entries. It is, moreover, the best single tool for assigning classification symbols and for determining the appropriate subject headings in the event a supplementary file in subject order should be contemplated.

Location symbols should appear only on the author or main-entry cards. This plan will obviate the need for searching two files whenever a new location is reported or when a book is lost or withdrawn.

Since all subject catalogs are comparatively small and, by their nature, of specialized reference value, they cannot expect to enlist the general interest and support to which a regional union catalog is entitled. They cannot, therefore, very well afford the advantages of independent staffs. With only two or three exceptions, all existing subject union catalogs are housed in a special library and administered by the library's regular catalog or reference staff. This is not a disadvantage, because the request for a book's location almost always either precedes or succeeds a reference question. Here the union catalog is chiefly an instrument for the extension of the library's regular service, while, in the case of the general union catalog, the location service, because of its all-inclusiveness, is something apart. If the two are not to be placed side by side and administered jointly, the subject union catalog definitely belongs within the library.

APPENDIX

A. INSTRUCTIONS FOR SELECTING ENTRIES TO BE INCLUDED IN THE UNION LIBRARY CATALOGUE OF THE ATLANTA-ATHENS AREA

I. Main Entries

A. Include all main-entry cards, L.C. as well as typed cards

1. Individual authors
2. Corporate authors
3. Anonymous classics
4. Uniform entry, such as sacred books, etc.
5. Title entry, such as anonymous books, periodicals, etc.
6. Bound withs

B. Reference cards

1. Author cross references
2. General information cards

C. Author analytics

1. *Inclusion* of publications analyzed
 - a. General analytics
 - b. Scientific and historical society publications
 - c. Learned society publications
 - d. University publications
 - e. State and government publications
 - f. Religious tracts or pamphlets
2. *Exclusion* of publications analyzed
 - a. Complete or collected works of an author
 - b. Collected plays, essays, short stories, or poems

D. Series entries

1. Combined series card
2. Analytics of a series (*These are the only secondary entries to be included*)

II. Scope

- A. All main entries
- B. All editions of a work
- C. Serials, continuations, etc.
- D. Series entries.

EXAMPLES

I. Main Entries

A. Include all main-entry cards, L.C. as well as typed cards

1. Individual authors

Gerould, Gordon Hall, 1877-

The ballad of tradition . . . Oxford, The Clarendon press, 1932
viii, 311, [1] p. illus. (music) 23cm.

2. Corporate authors

Germany. Constitution.

Die verfassung des Deutschen reichs vom 11 August 1919. Textausgabe und sachverzeichnis. Ausgabe 1929, Berlin, Reichzentrale für heimatdienst [1929]

47 p.

3. Anonymous classics

Gesta Romanorum.

Gesta Romanorum, entertaining moral stories, tr. from the latin with preliminary observations and copious notes by the Rev. Charles Swan and a preface by E. A. Baker. London, George Routledge & sons; New York, E. P. Dutton & co., 1905.

xx, 472 p. (On cover: Early novelists, ed. by E. A. Baker)

4. Uniform entry, such as sacred books

Bible. O. T. Jeremiah. English. 1919. Revised.

The book of the prophet Jeremiah, with introduction and notes, by L. Elliott Binns . . . London, Methuen & co. ltd. 1919
xc, 391, [1] p. 23cm. (Half-title: Westminster commentaries, ed. by Walter Lock)

5. Title entry, such as anonymous books, periodicals, etc.

Great German composers. N. Y., Appleton, 1882.

218 p. (Appleton's students' library)

Journal of chemical education . . . v.1-Jan. 1924-

Easton, Pa., Eschenbach printing company, 1924

v. illus., diagrs. 24 cm. monthly (except July and August)

6. Bound withs

Methodist Episcopal church.

The articles of religion as received and taught in the Methodist Episcopal church, throughout the United States of America. New York, printed by William Ross in Broadstreet, 1789.

10 p.

Bound with Methodist Episcopal church. A form of discipline.

B. Reference cards

1. Author cross references

Gough, Evelyn

see

Bacon, Mrs. Evelyn (Gough), 1892-

2. General information cards

U. S. Works projects administration

Created July 1, 1939 to absorb and continue the program and functions of the Works progress administration; it is a part of the Federal works agency under the terms of Reorganization plan no. 1.

Forenames

Forenames used as headings precede surnames.

Headings like Charles, George, Henry, etc., are arranged in the following groups:

1. Saints.
2. Popes.
3. Sovereigns.
4. Princes and nobility.
5. Others.

C. Author analytics

1. *Inclusion* of publications analyzed

a. General analytics

Dwight, Timothy, 1752-1817, ed.

Hymns selected from Dr. Watts, Dr. Doddridge, and various other writers. According to the recommendation of the joint committee of the General association of Connecticut, and the General assembly of the Presbyterian Church in America. By Timothy Dwight, D. D., president of Yale college. New Haven; Durrie & Peck. Stereotyped by A. Chandler, 1832. (in Bible. O. T. Psalms. English. Paraphrases. The Psalms of David, imitated in the language of the New Testament. 1832. [321-505])

Epistle to Diognetus.

The Epistle to Diognetus. (in Apostolic fathers. Writings of the apostolic fathers . . . v. 1, p. 299-316)

Formerly attributed to Justin Martyr.

Bowen, Francis, 1811-1890.

Life of Baron Steuben. (in Sparks, Jared, ed. The Library of American biography, v. 9 p. 11-88)

b. Scientific and historical society publications

Casanovicz, Immanuel Moses, 1853-1927.

The collections of old world archaeology in the United States National museum . . . With 57 plates. (In Smithsonian institution. Annual report. 1922. Washington. 1924. 25cm. p. 415-498. 57 pl. on 29 l. (incl. plan, facsimis.)

Cappleman, Mrs. Josie Frazee.

Local incidents of the war between the states. (in Mississippi historical society. Publications. v. 4, 1901, p. 179-87)

c. Learned society publications

Dunsany, Edward John Moreton Drax Plunkett, 18th baron, 1878-

England language condition! (in English association. Essays and studies. v. 13, p. 138-144)

- d. University publications
 Butterfield, L H
 Charles Churchill and A fragment of an epic poem. (in Harvard studies and notes in philology and literature. 1933. v. 15. p. 313-327)
 - e. State and government publications
 Durand, William Frederick, 1859-
 Experimental research on air propellers, II. By William F. Durand and E. P. Lesley.
 p. 261-321, illus., tables, diagrs., pl. (in U. S. Advisory committee for aeronautics, Annual report. 1918)
 Fairchild, Herman LeRoy, 1850-
 Latest and lowest pre-Iroquois channels between Syracuse and Rome. (in New York State museum. Annual report, 1901. r31-r47, fold. map. 31 pl.)
 - f. Religious tracts or pamphlets
 Bunyan, John, 1628-1688.
 The pilgrim's progress from this world to that which is to come, delivered under the similitude of a dream. New York, American tract society [18-?].
 376 p. (in American tract society. The evangelical family library. [18-?] v. 4)
 Clarke, Adam, 1762?-1832.
 Reply to various critiques on the first part of Dr. A. Clarke's Bible; as printed in the sixth number of the Classical journal. [London, Printed by A. J. Volpy, 1811],
 32 p. 8 vo. 21cm. (in his Miscellaneous tracts. [n. d.] [part 3])
2. *Exclusion of publications analyzed*
- a. Complete or collected works of an author
 - b. Collected plays, essays, short stories, or poems
- D. Series entries
- 1. Combined series card
 Childhood and youth series; ed. by M. V. O'Shea.
 Cook, W. A. The child and his spelling [c1914];
 Healy, William. Honesty [c1915];
 Swift, E. J. Learning and doing [c1914]
 - 2. Analytics of a series
 Genetic psychology monographs
 Stutsman, Rachel.
 . . . Performance tests for children of pre-school age . . . Worcester, Mass., c1926.
 67 p. incl. tables., plates. 23cm. (Genetic psychology monographs, vol. 1, no. 1)
- II. Scope
- A. All main entries—cf. examples
 - B. All editions of a work
 Gautier, Théophile, 1811-1872.

UNION CATALOGS IN THE UNITED STATES

- Mademoiselle de Maupin. London, Published for the trade [189-?]
 436 p. illus.
- Gautier, Théophile, 1811-1872.
 Mademoiselle de Maupin (Texte complet, 1835) Introduction et
 notes par Adolphe Boschot . . . Paris, Librairie Garnier Frères, 1930.
 xxxvi, 449 p. (Collection "Selecta" des classiques Garnier)

C. Serials, continuations, etc.

- German commerce yearbook . . . 1928-
 Berlin, Struppe & Winckler [1927?].
 v. diagrs. 24cm.
- Editor: 1928- Hellmut Kuhnert, in cooperation with the Deutsch-amerikanischer wirtschaftsverband.
- Journal of chemical education . . . v. 1-
 Jan. 1924-
 Easton, Pa., Eschenbach printing company, 1924-
 v. illus., diagrs. 24cm. monthly (except July and August)
 Published by Division of chemical education of the American chemical society.
- Editors: Jan. 1924- N. E. Gordon and others.

D. Series entries—cf. examples

B. DEFINITIONS OF CATALOGING TERMS

(List of most useful terms prepared by the Union Library Catalogue of Philadelphia)

AUTHOR—The writer of a book, as distinguished from translator, editor, compiler, etc.

AUTHOR ENTRY—An entry of a work under its author's name as heading. The author heading may consist of a personal or a corporate name or some substitute such as initials or pseud., etc.

JOINT AUTHOR—A person who writes a book in collaboration with one or more associates.

COMPILER—One who produces a work by collecting and putting together written or printed material from various sources.

EDITOR—One who prepares for publication a work or collection of works not his own.

CORPORATE ENTRY—Entry under the names of bodies or organizations for works published in their name or by their authority.

CONTINUATION—1. A work published as a supplement to one previously issued.
 2. A part issued in continuance of a serial or a book.

SERIAL—A publication issued in successive parts, usually at regular intervals, and as a rule intended to be continued indefinitely—serials include periodicals, annuals (reports, yearbooks, etc.) of societies.

MAIN ENTRY—The full or principal entry, as a rule the author entry.

PSEUDONYM—An assumed name under which a person writes.

TITLE—The name of any written production.

TITLE ENTRY—An entry of a work under some word of the title, generally the first.

ALTERNATIVE TITLE—A subtitle introduced by "or" or its equivalent.

EDITION—The whole number of copies printed from the same set of types and issued at the same time.

IMPRINT—The place, publisher's name, and date.

COLLATION—That part of a description which gives the volume, pages, illustrations, plates, maps, etc., constituting the book.

SERIES—A number of volumes, usually related to each other, issued successively by a publisher, as a rule in uniform style, with a collective title.

SERIES-NOTE—A note stating the name of the Series to which a book belongs. Series note usually follows the collation.

C. SAMPLES OF DIFFERENT TYPES OF LOCATION SYMBOLS

4. CALIFORNIA STATE LIBRARY:

Hanford P L
Pasadena P L
Riverside Co. F L
Sutro Branch, State L

5. BIBLIOGRAPHICAL CENTER FOR RESEARCH, ROCKY MOUNTAIN REGION:

CoCC (Colorado College, Colorado Springs)
CoD (Denver P L)
UPB (Brigham Young University, Provo, Utah)

10. NASSAU COUNTY LIBRARY ASSOCIATION:

6 (Floral Park P L)
11 (Hempstead P L)
24 (Adelphi College L)
25 (Hofstra College L)

11. WESTCHESTER COUNTY LIBRARY ASSOCIATION:

Irv. (Irvington P L)
N.R. (New Rochelle P L)
W.P. (White Plains P L)
WC.Hist. (Westchester County Historical Society)

12. UNIVERSITY OF NORTH CAROLINA LIBRARY:

Duke Univ.
Duke Physics Lib.

St. Aug.
Wake Forest

13. WESTERN RESERVE UNIVERSITY LIBRARY:
 E. Cleve. P L (East Cleveland P L)
 Hist. Soc. (Western Reserve Historical Society)
 U. of M. (University of Michigan)
15. OREGON STATE COLLEGE LIBRARY:
 OSC (Oregon State College)
 UO (University of Oregon)
 UOM (University of Oregon, Medical School)
16. UNION LIBRARY CATALOGUE OF THE PHILADELPHIA METROPOLITAN AREA:
 FrankfHS (Historical Society of Frankford)
 TempleU (Temple University)
 UPWhartnS (University of Pennsylvania, Wharton School of Finance
and Commerce, Lippincott Library)
18. VANDERBILT UNIVERSITY LIBRARY:
 Fisk (Fisk University)
 Public (Nashville P L)
 V.U. (Vanderbilt University)
19. VERMONT FREE PUBLIC LIBRARY COMMISSION:
 M58 (Middlebury P L)
 M58c (Middlebury College L)

**D. SORTING AND FILING PROCEDURE FOLLOWED AT THE UNION LIBRARY
CATALOGUE OF PHILADELPHIA**

The following steps ought to be followed in all filing and preliminary sorting of cards:

1. Sort all cards into the following 25 letter groups:

A	F	K	P	U
B	G	L	Q	V
C	H	M	R	W
D	I	N	S	XY
E	J	O	T	Z

Disregard the initial article and such initials as I., K., K.K., and R. in connection with the names of societies, institutions, etc.

2. Take up each of the 25 groups of cards in succession and sort them further by second letter; thus Aa, Ab, Ac, Ad, etc. Repeat this for the third, fourth, fifth letter, if necessary.
3. For final alphabetizing of each group, pick up the cards in your right hand and spread them out fan-wise so that you may see all the headings readily.

Then make with your left hand whatever changes and adjustments may be necessary.

4. After completing a group, place the cards apart—face downward—and proceed with the next group. When this new group is finished, add it to the already completed cards, face downward. Repeat this process until all your cards have been alphabetized.

5. In the actual filing of the cards in the trays, it is essential to pay special attention to three items on the card: the author, the title, and the date.

A. *Author.* The author's name, whether personal or corporate, is the chief and first thing to be considered. If two authors are given, disregard the second. The chief thing is that all the works by the same author should be found in one place.

B. *Title.* After you have found the author's place in the tray, consider the title of the work. The initial article is disregarded. File the titles of works by the same author in the alphabetical order.

C. *Date.* You will find many identical titles of a single author. File them together if the date is the same. When the date varies, arrange them chronologically, the earlier editions preceding the later ones.

E. SIMPLE FILING RULES

1. In filing, the parts of the card to be considered are (1) the author, (2) the title, (3) date of publication. When there is no date, sometimes indicated by n.d., place undated cards before the dated ones.
2. In arranging authors with the same surname, file them according to their given names.
3. As a general principle, always file cards giving incomplete information before those which cover the same item thoroughly. Thus the name Drake would be arranged:
 1. Drake, A. C.
 2. Drake, Andrew C.
 3. Drake, Andrew Charles
 4. Drake, Andrew Charles, 1906-

However, if the titles under Drake, A. C. correspond to those under Drake, Andrew Charles, 1906—, file the Drake, A. C. cards with the Drake, Andrew Charles, 1906—, alphabetically by title.

4. Titles are arranged alphabetically by the first word not an article. Place all like titles having the same date together; if the date varies, arrange them chronologically, beginning with the earliest.
5. In alphabetizing, disregard the article at the beginning of the title, but consider it in all other instances.
6. In case of like names representing persons, places or things, the order of filing is: (1) personal names, (2) place names, (3) titles.

7. Disregard titles of honor or designation such as Mr., Mrs., Frau, Graf Count, Lord, Sir, etc.
8. Disregard hyphens in names; file as if the words were written separately.
9. File abbreviated words as if spelled out. File *Mc* as if spelled *Mac*.
10. When two or more authors are given in the heading, disregard all but the first.
11. When a title begins with a numeral, file it as if the numeral were spelled out.
12. Disregard all diacritical marks, such as accents, apostrophes, etc. File them as if they were written without any mark. The umlaut (‘) is an exception to this rule: File as though the vowel were ae, oe, ue (ä, ö, ü), also file the Swedish å as aa.
13. Do not follow directions on cross-reference cards. File cross-reference cards before the author and title cards.

F. COMBINING INSTRUCTIONS AND POINTS TO CONSIDER

GENERAL RULE: Combine all cards in which:

1. author
2. title
3. imprint (i.e., place, publisher, and date) *agree*.

- A. Chronological Order. When like titles have varying dates of publication, arrange chronologically by date of publication.
 1. When like titles have like dates but varying places of publication, arrange alphabetically by place.
 2. When only publishers are unlike, arrange alphabetically by name of publisher.
 3. When date is the only part of imprint given, leave card uncombined before like title, except in fiction cards.
- B. Voluminous Classical Authors. These should be arranged chronologically and then duplicate titles combined.
- C. Library of Congress Cards.
 1. All duplicate L.C.'s are placed first in a combined group of cards.
- D. Open Entries. Instructor will demonstrate difference between complete works of more than one volume, and periodical or serial publications.
 1. Arrange all like titles chronologically by first date when publication is of more than one volume, by last date when of one volume only.
 2. If the titles vary in fulness and the imprint varies in place and publisher, do not combine.
 3. If title and imprint are identical and title shows it is a serial publication, combine on card having the earliest date.
 - a. One exception to this rule is very early almanacs. Arrange these chronologically and do not combine.

- E. Theses, i.e., works submitted to various universities as doctoral dissertations.
 - 1. Watch for these notes on cards.
 - 2. A title with this note and a like title *without* this note must stand uncombined in the tray.

F. Cross References. Do not combine.

- 1. In the event of *duplicate* cross-references, discard only the unstamped cards.
- 2. If a single unstamped cross-reference occurs, *leave* it in the tray.

A combined tray should appear as follows after stamped:

- 1. Alphabetically correct.
- 2. Authors with initials on some cards and full names on others should be interfiled with a guide card placed in front of group to avoid confusion.
- 3. All entries under surnames only should be checked with all complete entries of that surname appearing in the tray. This will avoid too many unidentified entries remaining uncombined.

G. JOINT UNIVERSITY LIBRARIES OF NASHVILLE, TENNESSEE
TENTATIVE RULES FOR THE UNION CATALOG

As Adopted by Representatives of the Contributing Libraries March 30, 1937

- I. The Union Catalog of Nashville Libraries is designed to become a permanent reference tool. Every effort should be made to make it as neat, accurate, durable, uniform, consistent, and as inclusive as possible.

Hence, it follows that: (A) All cards supplied for it should be stamped with the uniform stamp that has been provided to show location of books. Stamping should be consistently in black ink and placed in upper right hand corner of card parallel with printing or typing on it. (B) In so far as feasible, the Library of Congress form of entry should be followed. This is especially important for serials. (C) The essential *See* and *See also* references should be made up by the cataloger at the time she catalogs an item. At that time she should have many suggestions as to necessary cross references which would not occur to a person handling merely the cards later.

II. SCOPE

The following entries should be supplied to the Union Catalog by the contributing libraries:

- A. All main entries (including main entries for serials and series classified together).
- B. All main entries for independents (bound withs).
- C. Author analytics.
 - 1. For series.
 - a. Extensive series for which one or more libraries have substantial holdings.

UNION CATALOGS IN THE UNITED STATES

A list is to be compiled of all series now analyzed. This list is to be submitted to a committee consisting of a representative from each contributing library. This committee will consider for which series analytics should be made and by which library. Regular meetings of this committee should be held to consider new titles. *For extensive series of a general nature* the policy should be to have only one library make analytics for the Union Catalog. These analytics are to be stamped "For other libraries having this title see main card." In the case of *highly specialized and technical series* the committee should determine which titles need not be analyzed for the Union Catalog. The policy should be to omit this type of material.

- b. Short series or series for which libraries have broken holdings. Author analytics for such series should be made for the Union Catalog whenever they are made for the public catalogs of the contributing libraries, except for series already reported as analyzed by some other library.

2. For books.

- a. Books in series or parts of books in series.

Author analytics for such series should be made for the Union Catalog whenever they are made for the public catalogs of the contributing libraries, except where series are extensive enough, in the judgment of the cataloger, to be referred to the committee.

- b. Parts of a book.

Author analytics should not be made for the Union Catalog for parts of a book.

- D. Series cards, excluding all commercial publishers series, except those which seem important enough to the cataloger to refer to the committee on the Union Catalog.

- E. All name references, according to the practice of the contributing library, to be filed in the Author Section of the Union Catalog.

- F. For serials, all title references or added entries for earlier titles, according to the practice of library.

III. DEFINITIONS OF SERIALS

Follow the L.C. rule as qualified below:

Serials consist of periodicals and continuations that are intended to be continued indefinitely.

- A. Regular periodicals are publications issued periodically at more or less regular intervals, oftener than once a year and numbered correspondingly (including newspapers).
- B. Continuations are annuals (Yearbooks, Reports, etc. of institutions, societies, government departments and other bodies, issued annually).

- C. Reports, Transactions, Proceedings, etc., not necessarily issued annually or at regular intervals, but nevertheless to be treated as serial publication, and
- D. Works issued in installments, each part being (as a rule) less than a complete volume.

IV. TREATMENT OF SERIALS

All serial entries are to be filed separately in the Serial Section of the Union Catalog. These entries are to consist of a main entry, including a "library has" card, with essential cross references from earlier titles or added entries for earlier titles, according to the practice of the library. Tracing for these cross references or added entries should be on the back of the main entry card. Whenever a serial is to be analyzed, author analytic entries should be supplied for the Union Catalog. The tracing made on the back of the main entry in the Serial Section of the Union Catalog should indicate that author analytics have been supplied, and a control record should be kept in the contributing library showing treatment of serial.

V. TREATMENT OF SERIES

- A. All numbered series classified together, analyzed and unanalyzed.
Treat as indicated for serials in IV. (Excepting V(F) below).
- B. Numbered and classified separately.
Checking card for series in Serial Section of Union Catalog showing holdings by number or date but not by author and title. Main entry for each in Author Section of Union Catalog.
- C. Unnumbered and classified separately.
Main author card for each volume of series in Author Section of Union Catalog. Series cover title in Serial Section of Union Catalog. Series cover title in Serial Section of Union Catalog stamped "Individual titles in Author Section of this Catalog. For complete record of holdings see catalog of Library." Stamps to be supplied by Union Catalog.
- D. Unnumbered, analyzed, and classified together.
Author analytic card for each volume of series in Author Section of Union Catalog. Main entry for series in Serial Section of Union Catalog stamped as under V(C) above. For tracing see Treatment of Serials under IV.
- E. Unnumbered, unanalyzed and classified together.
Main entry for series in Serial Section of Union Catalog.
- F. "Sets of books" (such as dictionaries, encyclopedias, and certain historical series, etc.) published as series but designed to be completed, should be filed in Author Section of the Union Catalog.

VI. KEEPING THE RECORD FOR SERIALS AND SERIES UP TO DATE

- A. New acquisitions should be reported to the Union Catalog promptly. If title is current, show date, volume or number with which file begins "to date." If file is broken, report holdings on checking card.
- B. If a file previously described as broken is completed, replace old card in Union Catalog to show change of holdings.
- C. Cancellations of subscriptions should be reported specifically in terms of volume or number and date of last item received. Again it may be best to use a new card for replacement.

VII. Lost and discarded books should be reported to the Union Catalog at the time the holding library removes cards.

VIII. Cards for the Union Catalog should be sent to it at least once a month. Since serials are now grouped separately in the Union Catalog, it would be helpful if the contributing libraries would group their cards for serials and series separately with a rubber band around them.

IX. Changes in classification or author numbers of books need not be reported to the Union Catalog.

This section is to be resubmitted to group.

H. 1. ANALYSIS OF INQUIRIES: MONTHLY REPORT FORM

(Union Library Catalogue of the Philadelphia Metropolitan Area)

Report on Inquiries for

A. Number of inquiries by:

- 1. Telephone:
- 2. Mail:
- 3. Personal call:

B. Items searched:

- 1. Staff:
- 2. Personal search:
- 3. Located (B₁–B₂):

C. Cooperating union catalogs:

- 1. Items searched (not under B₁):
- 2. Located (not under B₃):

D. Grand total: (1) Inquiries:

(2) Items searched:
(3) Items located:

E. Inquiries received from:

- 1. Libraries:
- 2. Faculty and graduate students:
- 3. Undergraduates and students:

4. Professionals:
5. Businessmen and organizations:
6. Others:

F. Libraries and Institutions consulting the ULC:

H. 2. ANALYSIS OF INQUIRIES: SEPARATE QUESTION FORM
(Bibliographical Center for Research, Rocky Mountain Region)

Type of Question:

From:

Question:

Answer:

Sources:

Union Catalog

Additions

Dexigraph Negatives

Union List of Serials

CoD Official Catalog

Comments:

Initials:

Date:

J. 1. GUIDE CARD OF THE UNION LIBRARY CATALOGUE OF THE PHILADELPHIA METROPOLITAN AREA PREPARED FOR INSERTION
IN LIBRARY CATALOG TRAYS

A Location Catalogue for Books not in this Library

- If, after exhausting the resources of this library, you still wish to locate some specific material not to be found here, inquire of the UNION LIBRARY CATALOGUE OF THE PHILADELPHIA METROPOLITAN AREA (see Bell Telephone Directory).
- The Union Library Catalogue is a comprehensive card file or finding list indicating which of the 150 or more libraries in this vicinity have certain books, periodical sets, pamphlets, etc.
- The cards are arranged by *author or main entry*, and not by subject; please give exact and complete information when making an inquiry.
- The ULC does not borrow books nor does it make arrangements to gain access to them; it only informs you where to make further inquiry.
- The service by mail or telephone is free to all.

**J. 2. SAMPLE FORM FOR ANALYZING THE SUBJECT AND SPECIAL
COLLECTIONS OF A LIBRARY**

(Union Library Catalogue of Philadelphia)

LIBRARY	LC symbol
	ULC symbol

Address	Hours	Specialists
Telephone		
Librarian		
Other members contacted:		

Type and scope

No. of volumes	Periodicals
Approx. no. pamphlets on shelf	No. rec'd currently
No. of 4-drawer units of vertical files	No. bound regularly
	Approx. no. bd. vols.

Staff: Total	Professional	Others
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Subjects covered:

(tracing of subject file)

Special materials:

(tracing of subject file)

Special indexes

Policy: Open to members only	Reference use only	Borrowing privileges
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Interlibrary loan policy:

Photostat	Microfilm camera	Reading machine
On file: ULC description	BPC description	In BPC report
Questionnaires: General	Cataloguing	Interlibrary loan

Publications by and about the library: (check if on file at Center)

Remarks:

J. 3. SAMPLE FORM FOR AN INDEX OF SPECIAL COLLECTIONS
(Union Library Catalogue of Philadelphia)

Subject	Name of Library
Class	Subject specialists:

Numerical information on subject holdings:

General description:

Special strength within subject:

Other material, information services, memberships, etc.

Tools (indexes, etc.)

Note printed descriptions of holdings on verso of this sheet

K. MANUAL OF PROCEDURE FOR COMPILED THE UNION CATALOG OF
 ART BOOKS IN CHICAGO (AUGUST 9, 1940)

I. DESCRIPTION OF PROJECT

The compilation of a union author card catalog of the art books in the Chicago Art Libraries.

II. LIBRARIES INCLUDED

- ICA-R Chicago Art Institute—Ryerson Library
- ICA-B Chicago Art Institute—Burnham Library
- IC Chicago Public Library
- ICN The Newberry Library
- ICJ John Crerar Library
- ICU University of Chicago—Harper Library
- ICU-A University of Chicago—Art Department Library
- ICU-C University of Chicago—Classics
- ICU-O University of Chicago—Oriental Department Library

III. SCOPE OF MATERIAL INCLUDED

"Art Books" as defined for the purpose of this catalog, shall be interpreted generally as those included in the following Dewey Decimal and the Library of Congress Classifications divisions:

Dewey Classification:

700.....	Fine Arts
710.....	Landscape gardening
720.....	Architecture
730.....	Sculpture
740.....	Decorating, Design, Arts and Crafts
750.....	Painting
760.....	Engraving
770.....	Photography

The Library of Congress Classification:

N.....	Fine Arts—General
NA.....	Architecture
NB.....	Sculpture and related arts
NC.....	Graphic Arts in general. Drawing and design
ND.....	Painting
NE.....	Engraving
NK.....	Arts applied to industry. Decoration and ornaments
TR.....	Photography

Other subjects not listed but which are related or associated with the arts, music excepted, are to be included also.

IV. SOURCE OF DATA

The data to be copied will be taken from the dictionary card catalogs and from shelf lists of the libraries listed. At the Art Institute Libraries the information will be copied from the author cards of the public or dictionary catalog.

V. ORGANIZATION AND PROCEDURE

All project workings and functions will be under the immediate supervision of the Project Supervisor. Delegation of supervisory functions will be made in accordance with the project requirements.

Central Offices: Permanent headquarters will be at the University of Chicago Art Department Library. The staff will consist of the supervisor, research editors, assistants, senior clerks, typists and such workers as may be required.

Field Units: Field units will be located in the libraries listed in Item II. A field unit will consist of one research assistant and a group of senior clerks. The research assistant will make out a daily report of work done, check, aid and supervise the work of the field unit in general.

Coordination: The work completed at the field units will be sent to the Central Office for coordinating, typing and completion.

Training Unit: A training unit will be located in the Central Office. Personnel will be trained in the method and practice of the work to be done in the field units.

VI. DETAILS OF PROCEDURE

The First Field Unit: The first field unit will be set up at the University of Chicago Art Department Library. This will also constitute a training unit for personnel to be transferred to other field units. The whole will be supervised from the headquarters Central Office located in the same library.

Unit Supervision: The unit supervisor will cooperate with the librarian in arranging for the use of workers of the shelf lists of catalog cards, space and other accommodations. Tray and lists being used by the project workers must be surrendered to the librarian whenever requested.

Unit supervisors will be responsible for all work done at their unit; the assigning of the work to the senior clerks; the checking and directing of its progress; the collection of each day's completed work and its safe-keeping; the keeping of the records and files; the making and transmitting of reports, and for the general supervision and conduct of the unit.

(1) *Copying from Catalog Cards:* Information on the author catalog cards will be copied according to the following instructions:

Copy all the information on 3 x 5 slips (white paper), hereafter to be known as "master slips." Writing is to be printed in longhand with a number 2 pencil. (See Exhibit A.)

Copy all the information on the L.C. cards to and including the collation, i.e., that part of the description which specifies the volumes, pages, illustrations, plates, maps, etc. Do not copy anything below the collation except the L.C. numbers. (See Exhibit B.)

Margins, spacing, punctuation and capitalization must conform to the original cards.

Do not copy the call numbers on the upper left hand margin. Print in this space with a red pencil the letters designated in Item II, as the symbols for the library from which the work has been copied. (See Item II for the order in which the symbols are to be placed.)

Master slips are to be kept in alphabetical order at all times. Slips will be banded together in suitable packets at stated intervals. The number of master slips to be included in these packets to be determined by the project supervisor.

(2) *Route Slip:* Route slips giving the name, date, number and details of progress and operation (See Exhibit C) will be attached to each packet.

(3) *Work Report:* A daily work report will be made out by each worker, giving the full details as required (See Exhibit D) to be turned in to the unit supervisor.

(4) *Proofreading:* Proofreading of master slips must not be done by the worker who copied the slip. To clarify, *a worker must not proofread his own copy.*

Proofreaders will be responsible for the detection and correction of all errors made in copying the number card on to the master slip. Their instructions are the same as those for copying the catalog cards on to the master slips. (See Item VI, no.1.)

Proofreaders will verify the count of the master slips in each packet completed and note the operation on the route slip (See Exhibit C) before turning them in to the unit supervisor.

(5) *Variance in Procedure:* The procedure for copying author cards on to the master slips and for proofreading them will be the same in detail in every library field unit, with the exception of the Art Institute Libraries. Here the shelf-list cards do not contain full information and the master slips will be copied from the author cards contained in the public or dictionary catalog. Satisfactory arrangements for the use of the trays will be made with the librarian.

(6) *Coordination:* Coordinating consists in assembling the master slips from all the field units for the purpose of combining or uniting them into one entry. For example: Some of the libraries, or all of the libraries, may have identical entries in their holdings. The coordinator, according to his findings, will combine all the slips with identical holdings, staple them together and resymbolize the top master slip to indicate the libraries holding this book. The other slips attached will be canceled, but will be retained in this manner as proof of the original entry.

Coordinating will be done under the direct supervision of the project supervisor. On completion of this operation master slips will be filed alphabetically in trays.

(7) *Typing:* The typist will copy from the master slips indicated by the coordinator, on to 3 x 5 catalog cards, typing *all* information appearing on the indicated master slips. Follow the form, spacing, punctuation and capitalization indicated on the master slip. (See Exhibit E for sample Library of Congress Card.)

The author's name will begin three lines from the top of the card, with a five space margin and will not continue beyond three spaces from the right-hand margin. Where the author's name or entry takes more than one line, the succeeding line or lines will be indented three spaces from the margin.

The title of the book will be indented three spaces from the margin, on the line below the author's name. The imprint will follow consisting of place of publication, publisher and date of publication.

The number of volumes will be placed on the second line, below the body of the card, indented three spaces from the margin.

Three spaces will be left after periods at the end of a sentence, and after the three dots, except where the spacing on the card being copied from differs, then follow the spacing of the original card. In the imprint (i.e., place, publisher's name, place of publication, date, etc.), a comma follows the place of publication and one space, then the publisher and one space followed by the date.

The Library of Congress number will be placed two or three lines from the bottom of the card, beginning three spaces from the margin.

Cross-reference cards will follow the spacing as set out in the sample shown on page 346.

In case of doubt, the typist will include all information on the card. It is better to have too much rather than too little. *At no time* under any circumstances will any word be hyphenated or split, unless it is so hyphenated or split

on the original card.

When the typed card is complete it will be placed in the tray immediately behind the master slip. Typist will turn in a daily work report to the unit supervisor.

(8) *Proofreading Typed Cards:* Typed permanent cards will be carefully proofread and all errors corrected. Where necessary, to insure clean and accurate cards, a complete new card will be typed.

Proofreaders will turn in a daily report of their work to the unit supervisor.

(9) *Symbolizing:* Permanent cards will be symbolized as designated by the symbols on the master slips. Rubber stamps and red ink will be used for this work.

The designated symbol or symbols will be stamped on the left hand margin of the permanent Union Catalog card in the order shown in Item II. Symbolizers will guard against blotting or otherwise smearing the cards. They will be careful to return both master slip and permanent card in their proper order to the tray.

Symbolizers will turn in a daily report of their work to the unit supervisor.

(10) *Final Checking and Alphabetizing:* Final checking and alphabetizing the Union Art Catalog cards will be done by the most accurate and expert workers on the project. It will be done at the project headquarters under the direct supervision of the project supervisor.

Cards will be checked for every possible mistake, including the symbols, L.C. numbers, etc. and corrections made at once. Master slips will then be separated from permanent cards and each filed in true alphabetical order in separate trays. (Carnegie Library of Pittsburgh, *Rules for filing cards*. . . . 1932 will be used as authority for filing.)

The worker assigned to this operation will make a detailed daily work report and turn it in to the supervisor.

Vinci, Leonardo da

see

Leonardo da Vinci

EXHIBITS

Edgell, George Harold, 1887 -

A history of Sienese painting by
George Harold Edgell New York
L. MacVeagh, The Dial Press, inc. 1932.

xxiii, 302p. front (map) plates, 24 1/2 cm.

1. Painting - Siena-Hist. 2. Painting, Sienese.

32-16529

EXHIBIT A

Edgell, George Harold, 1887 -

A history of Sienese painting by
George Harold Edgell New York
L. MacVeagh, The Dial Press, inc. 1932.

xxiii, 302p. front (map) plates 24 1/2 cm.

1. Painting - Siena-His. 2. Painting, Sienese.

32-17629

EXHIBIT B

UNION CATALOGS IN THE UNITED STATES

(Keep attached to packet of slips at all times)

Route Slip

Field Unit _____

Cards Copied from _____ To _____

Copied by _____ Date _____

No. Slips Copied _____ From _____ To _____

Proofread by _____ Date _____

Final Count _____ Series _____

EXHIBIT C

Daily Work Report

Date _____

Operation _____ Letter _____

Copying Slips _____

Proofreading Slips _____

Coordinating Slips _____

Typing Cards _____

Checking _____

EXHIBIT D

PART FIVE

Directory of Union Catalogs in the United States

by ARTHUR BENEDICT BERTHOLD,
Associate Director,
Philadelphia Union Catalogue

*Directory of Union Catalogs in the United States*¹

THIS *Directory* IS AN ATTEMPT TO BRING TOGETHER IN CONVENIENT FORM SUCH information about the subject, scope and services of various union catalogs in the country as will enable the scholar and the reference librarian to take full advantage of these new research tools. The term *union catalog* has been given its broadest interpretation. All catalogs containing cards from more than one library have been included. Specifically, 117 catalogs are listed. Broadly classified, they are as follows:

National union catalogs	2
Regional and local union catalogs	18
National subject union catalogs	7
Regional and local subject union catalogs	25
Exchange catalogs	6
Library of Congress Depository Catalogs	<u>59</u>
	117

In one sense or another, all of these are union catalogs. Even the Unexpanded Depository Catalogs are such by virtue of the fact that they include cards prepared in various libraries, though printed by the Library of Congress under the cooperative cataloging plan.

The matter of terminology and classification is still rather unsettled. For the sake of simplicity, regional and local or municipal union catalogs have not been separated; all are listed as regional.

The arrangement for each section is first by state and then by city. Union catalogs in the first four groups are described in some detail because their proper functioning presupposes a certain amount of independence. Exchange and Library of Congress Depository Catalogs, on the other hand, have never been regarded as independent functional units. For this reason, only their contents are given. Although every effort was made to include all catalogs deserving inclusion and to describe them adequately, it is too much to hope that these tasks have been performed with uniform success. Corrections and additions are, therefore, very welcome.

¹ Work on the *Directory* was begun in March 1939, under a grant from the Graduate Library School of the University of Chicago.

I. UNION CATALOGS: NATIONAL

1. LIBRARY OF CONGRESS. Union Catalog, Washington, D.C.

In charge: George A. Schwegmann, Director; Lewis C. Coffin, Assistant Director.

Hours: weekdays, 9:00 A.M.-10:00 P.M.; Saturdays (during July and August), 9:00 A.M.-1:00 P.M.; Sundays and holidays, 2:00-10:00 P.M.

Scope: United States and a few libraries of Canada; also sets of cards from the chief libraries of Europe (filed separately).

Although the early efforts to compile a union catalog at the Library of Congress may be traced back to the beginning of the present century, the Union Catalog in its present form was organized in 1927. The main file now consists of about 10,750,000 cards recording the locations of approximately 8,500,000 individual works. The yearly growth is very nearly 400,000 cards (386,000 cards received during 1939-40). Although cards have been received from several hundred libraries all over the country, the following "list of fifty libraries whose contributions, until now, represent either the most extensive or valuable additions to the Union Catalog" are of special significance: *Universities:* Brown, California, Catholic, Chicago, Cincinnati, Columbia, Cornell, Duke, Emory, Harvard, Illinois, Indiana, Iowa, Johns Hopkins, Michigan, Minnesota, North Carolina, North Dakota, Northwestern, Oregon, Pennsylvania, Princeton, Rochester, Rutgers, Stanford, Texas, Toronto, Williams College, Yale; *Public libraries:* Boston, Cleveland, New York, Newark; *Miscellaneous:* Huntington, U.S. Department of Agriculture, Folger, Library of Congress, Pan-American Union, U.S. Army Medical Library, John Crerar, Newberry, Howard Memorial (New Orleans), Peabody Institute, Massachusetts Horticultural Society, American Antiquarian Society, Hispanic Society, Union Theological Seminary (New York), Library Company of Philadelphia, John Carter Brown, Grosvenor.

Besides the main catalog, there are also the following 34 supplementary card files. The number of cards in each is as of May 1940. (1) A.L.A. Periodical Index, 215,000 cards; (2) Alexander Turnbull Library, Wellington, N.Z., 600 cards; (3) American Doctoral Dissertations, 75,625 cards; (4) Berlin Dissertations, 144,600 cards; (5) Bibliografía Científico-Literaria, 381 cards; (6) Bibliographia Universalis Silviculturae, Sectio Belgica, 360 cards; (7) Bibliographie Egyptologique, 1,750 cards; (8) Bibliographie Universelle, 2,760 cards; (9) Bibliography of Meteorological Literature, 65,000 cards; (10) Biblioteca del Seminario di Adria, Rovigo, Italy, 16 cards; (11) Biblioteca Nacional, Venezuela, 2,500 cards; (12) British Museum Monthly Accessions Lists, 400,000 cards; (13) Catalog of Bibliographies, 17,000 cards; (14) Central Book Chamber, Moscow, 79,290 cards; (15) Český Katalog Bib-

liograficky, 10,000 cards; (16) Concilium Bibliographicum, 1,112,770 cards; (17) Deichmanske Bibliothek, Oslo, 22,000 cards; (18) Handels-Economische-Bibliotheek, Amsterdam; (19) Index to Names of Special Collections, 1,300 cards; (20) Index to the Annual Report of the Librarian of Congress, 11,950 cards; (21) Index to Special Collections in North American Libraries, two sets of 6,500 cards, one arranged by subject, the other by geographical location; (22) International Labour Office Library, 656 cards; (23) League of Nations Catalog, 350 cards; (24) Leningrad State Library Catalog, 113,016 cards; (25) Notgemeinschaft der Deutschen Wissenschaft, 3,046 cards; (26) Pan American Union Library, Theses on Pan-American Topics, 500 cards; (27) Photo-Facsimiles in North American Libraries, 6,000 cards; (28) Priced Memoranda, 940,000 cards; (29) Royal Library, The Hague, 42,000 cards; (30) Semitics Union Catalog, 17,750 cards; (31) Slavic Union Catalog, 42,000 cards; (32) Union Catalog of Newspapers on Microfilm, 135 cards; (33) Vatican Library Printed Card Catalog, two sets of 30,000 cards each; (34) Wistar Institute Catalog, 10,000 cards.

Services: Acts as a clearing house for information on the location of research material for the entire country, and may be consulted by mail, by telephone or personal visit. Works not located in its own files are circularized by means of weekly search lists among some 50 cooperating research libraries and regional union catalogs, and unlocated material of intrinsic research value is published annually in a cumulated list of "Unlocated Research Books."

References: For detailed lists of works by and about the Union Catalog, consult *Library Literature*.

2. AMERICAN IMPRINTS INVENTORY (Historical Records Survey). Imprint Catalog, 433 East Erie Street, Chicago, Illinois.

In charge: Douglas C. McMurtrie, National Editor; Geraldine Beard, Chief Imprints Editor.

Hours: Monday to Friday, 9:00 A.M.-5:00 P.M.

Scope: American imprints found in the libraries of the United States from the establishment of printing to 1876 (later for certain western states).

The American Imprints Inventory began to record the titles of American imprints in 1937, and is now very nearly completed. It consists of over 2,000,000 entries and covers the entire country. The file is arranged by place of publication and by imprint date. As the sections for cities and/or states are edited, the material is published, and at the same time the entries are incorporated in the Union Catalog of the Library of Congress. It will cease to exist as an independent catalog as soon as the editing is finished, a process likely to consume several years.

Services: The efforts of the staff of the catalog are devoted primarily to the editing of the files and the preparation of regional and local check lists, but a reasonable amount of bibliographical service to the public is available upon request.

II. UNION CATALOGS: REGIONAL AND LOCAL

3. CLAREMONT COLLEGES LIBRARY. Catalog of the Libraries, Harper Hall, Claremont, California.

In charge: Mrs. Hattie McConnoughay, Cataloger.

Scope: Claremont, California.

Catalog was organized about 1931, and consists of cards for all the books in the libraries of Claremont College, Pomona College, and Scripps College. From 7,000 to 8,000 cards are added annually.

Services: Although each of the three libraries maintains its own individuality, the purchasing, accessioning and cataloging of books is done through a central office located in the Claremont Colleges Library (Harper Hall). Each library also maintains a separate catalog, but a joint author catalog and shelf list are maintained centrally. These union catalogs may be consulted by students and faculty and the library staffs for all research and bibliographical purposes, and serve the three libraries collectively.

4. CALIFORNIA STATE LIBRARY. State Union Catalog, State Library, Sacramento, California.

In charge: Mrs. Miriam C. Maloy, Supervising Catalog Librarian.

Hours: Monday to Friday, 9:00 A.M.-5:00 P.M.; Saturday, 9:00 A.M.-12:00 noon.

Scope: California (with the addition of certain eastern libraries which distribute printed cards).

The catalog was organized in 1909, beginning as a union list of periodicals in California libraries, and gradually expanding to a union catalog. Cards received from 72 libraries number about 2,360,834 entries, and the yearly growth is approximately 150,000 cards. The catalog excludes school texts, juvenile literature and English fiction owned by county and city libraries. Cards are now regularly received from: Library of Congress; College of the Pacific; the following *universities*: California, Chicago, Harvard, Michigan, Southern California, Stanford, and Wesleyan; the *county libraries* of Alameda, Amador, Butte, Calaveras, Colusa, Contra Costa, Fresno, Glenn, Humboldt, Imperial, Inyo, Kern, Kings, Lassen, Los Angeles, Madera, Marin, Merced, Monterey, Napa, Orange, Placer, Plumas, Riverside, Sacramento, San Benito, San Bernardino, San Diego, San Joaquin, San Luis

Obispo, San Mateo, Santa Barbara, Santa Clara, Siskiyou, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Ventura, and Yolo; the *municipal libraries* of Glendale, Hanford, Long Beach, Los Angeles, Marysville, Palo Alto, Pasadena, Richmond, San Marino, Santa Barbara, Stockton, Ventura, and Woodland. Libraries which have occasionally contributed cards for certain of their collections include: California Genealogical Society, Mills College, University of Santa Clara, Scottish Rite of Free Masonry (San Francisco), and the public libraries of Modesto, Monterey, Redlands, Sacramento, San Francisco, San Luis Obispo, San Mateo, Santa Cruz, and Santa Monica.

Services: The union catalog serves chiefly to facilitate interlibrary loans among the various county and municipal libraries which send their requests to the State Library. It is also used to promote cooperative purchasing among the contributing libraries. Requests and questions are handled by the reference and circulation departments of the State Library, while the upkeep of the catalog is delegated to the catalog department.

References: Gillis, M. R. "The Union Catalog and the Newspaper Index as Means of Increasing Reference Resources of the State Library," in National Association of State Libraries, *Proceedings and Papers 1930-31*, p.27-30.

5. BIBLIOGRAPHICAL CENTER FOR RESEARCH, Rocky Mountain Region. Public Library, Denver, Colorado.

In charge: Weldon Kees, Acting Director.

Hours: 9:00 A.M.-5:30 P.M.

Scope: Rocky Mountain Region.

The union catalog is a tool of the Bibliographical Center for Research and was organized in 1936. The basic file consists of a set of Library of Congress cards to which are added the cards from the Folger Shakespeare Library, John Crerar Library, and the Concilium Bibliographicum. The catalog now contains about 3,000,000 cards and includes the following libraries of the region: Adams State Teachers College, Colorado Springs Public Library, Colorado College, Fine Arts Center (Colorado Springs), Iliff School of Theology, University of Denver School of Librarianship, Denver Public Schools Professional Library, Regis College, University of Denver, Colorado State College of Agriculture and Mechanic Arts, Colorado School of Mines, Colorado State College of Education, Western State Teachers College, Loretto Heights Academy, Colorado Fuel and Iron Company, University of Colorado, Brigham Young University, University of Wyoming. More libraries in the region may be added from time to time.

The Bibliographical Center possesses a reference library of about 8000

volumes, consisting of most of the important national and trade bibliographies and a fairly adequate collection of subject bibliographies, catalogs, and general reference works. It also maintains the following special files: (1) Colorado authors and books about Colorado; (2) academic dissertations produced in Colorado; (3) Library of Congress cards for bracketed headings (now filed in the main catalog under title); (4) card file for bibliographies (recently interfiled in the main catalog).

Services: The Bibliographical Center acts as a central agency for all cooperative undertakings of the libraries of the region. Its service includes the location of books (both among libraries and union catalogs), arranging of interlibrary loans, checking of trade bibliographies, book appraisals, authority for catalog entries, reference questions of a general type, bio-bibliographical research, the compilation of bibliographies, source material for graduate study, reports on regional holdings to prevent duplication, lists of best books, library statistics, and cooperative purchasing.

References: A good account of the formation and work of the Center is given by the former Director, John Van Male, in "Denver's Bibliographical Center," *Special Libraries*, XXXII (1941), 41-45, 64-68.

6. EMORY UNIVERSITY LIBRARY. Union Library Catalogue of the Atlanta-Athens Area, Emory University, Georgia.

In charge: Laura C. Colvin, Editor.

Scope: Atlanta-Athens Area, Georgia.

Work on the catalog was started in February 1940, and at present is only partly completed. When finished, the catalog will consist of about 700,000 entries from the following libraries: *college and university*: Agnes Scott College, Atlanta University (Negro), Emory University, Georgia School of Technology, University of Georgia, University System of Georgia Evening School; *miscellaneous*: Carnegie Library of Atlanta, Columbia Theological Seminary, Fulton County Medical Society, Gammon Theological Seminary (Negro), Georgia Experiment Station, Georgia State Archives, Georgia State Library, High Museum of Art, Insurance Library Association, Kriegshaber Memorial Library for the Blind, Teachers Reference Library, Theosophical Society of Atlanta, U.S. Federal Reserve Bank, U.S. Food & Drug Administration (Atlanta), U.S. Forest Service; and possibly the following additional libraries: Atlanta Chamber of Commerce, Atlanta Historical Society, Atlanta Southern Dental College, Georgia State Department of Education, Georgia State Library Commission, Retail Credit Company, U.S. Veterans Administration Library, Woodrow Wilson College of Law.

- 6A. UNIVERSITY OF GEORGIA LIBRARY. Union Library Catalogue of the Atlanta-Athens Area, University of Georgia Library, Athens, Georgia. This will consist of a duplicate set of cards of the catalog now being compiled at Emory University. See No. 6.
7. NEBRASKA STATE LIBRARY COMMISSION. Nebraska Union Catalogue, State House, Lincoln, Nebraska.

In charge: Mrs. Dorothy W. Lessenhop; Miss Kathryn L. Buck.

Hours: 8:00-12:00 A.M.; 1:00-5:00 P.M.

Scope: Nebraska.

Catalog organized in October 1938, and now contains about 670,000 main-entry cards from the following 28 libraries: Society of Liberal Arts (Joslyn Memorial), Nebraska Public Library Commission, Nebraska State Historical Society, Nebraska State Law Library, Lancaster County Medical Society; *Colleges and universities:* Creighton University, Doane, Hastings, Midland, Nebraska Wesleyan University, Municipal University of Omaha, Kearny State Teachers, Peru State Teachers, Wayne State Teachers, Union, University of Nebraska; *Public libraries:* Beatrice, Fairburn, Falls City, Fremont, Grand Island, Hastings, Lincoln, Nebraska City, Norfolk, North Platte, Omaha, Scottsbluff.

The union catalog includes all cataloged material except juvenile literature.

Services: Although well-edited and thus in a position to promote bibliographical cataloging and other cooperative activities, the catalog is used chiefly to locate books for interlibrary loans within the state.

8. NEW HAMPSHIRE STATE LIBRARY. Union Catalog of Nonfiction in New Hampshire Libraries, State Library, 20 Park Street, Concord, New Hampshire.

In charge: Thelma Brackett, State Librarian.

Hours: weekdays, 8:30 A.M.-5:00 P.M.; Saturdays, 8:30 A.M.-12:00 noon.

Scope: New Hampshire.

This union catalog was started in 1938, to locate current nonfiction requested on loan from the State Library. As lack of means prevented a thorough inventorying of the entire resources of the cooperating libraries, it was decided to contribute cards only for nonfiction purchased by the libraries after January 1, 1938. This chronological division, however, does not now hold entirely true, since duplicate cards have been received and filed from the American Imprints Inventory of the state. About 70,000 main-entry cards have been filed up to the present, and the yearly number of cards contributed is approximately 12,000. The libraries included are: the *public*

libraries of Alstead, Bath, Berlin, Boscowen, Claremont, Concord, Conway, Exeter, Franklin, Goffstown, Greenland, Hanover, Hillsboro, Hollis, Hudson, Keene, Laconia, Lancaster, Lisbon, Littleton, Lyme, Manchester, Milford, Monroe, Moultonboro, Nashua, New Hampton, New London, Newport, North Conway, Peterborough, Pittsfield, Portsmouth, Somersworth, South Hampton, Sutton, Tilton, Winchester; and the libraries of the State Planning Board, Public Library Commission, Rivier College, St. Anselm's College, and University of New Hampshire.

Services: "Valuable only in locating books for borrowers. Serves incidentally as a buying guide to State Library, which does not need to purchase books elsewhere easily available."

9. NEW JERSEY PUBLIC LIBRARY COMMISSION. Union Catalog of Material in Libraries and in Private Collections in New Jersey, State House Annex, Trenton, New Jersey.

In charge: Ethel S. Brown, Assistant Librarian.

Hours: weekdays, 9:00 A.M.-5:00 P.M.; Saturdays, 9:00 A.M.-12:00 noon.

Scope: New Jersey.

The union catalog was started in 1934, at which time it was decided to prepare both a union catalog and an index to special collections in public and private libraries. The index includes approximately 600 collections and has been published (New Jersey library association. Junior members round table. Union catalog committee. *Survey of special collections in New Jersey libraries*. New York, H. W. Wilson Co., 1940). At the same time some of the libraries included in the index began to send cards for their more important works to the State Library Commission, to be included in the union catalog proper. Up to the present approximately 100,000 cards have been contributed and filed, but none of the contributing libraries is completely represented. The best representation is from the following 11 *county libraries*: Atlantic, Burlington, Camden, Cape May, Hunterdon, Mercer, Monmouth, Morris, Ocean, Somerset, Warren; *Public libraries*: Atlantic City, Bergenfield, Bloomfield, Cranford, Englewood, Haddonfield, Hamilton Township, Hoboken, Irvington, Keyport, Ocean City, Passaic, Perth Amboy, Rahway, Rutherford, Woodbury; *Institutional and academic libraries*: College of Pharmacy (Newark), Garrett Mountain Reservation, New Jersey Agricultural Experiment Station (New Brunswick), Merchantville Public School, New Jersey Historical Society, Rider College, Rutgers University, New Jersey State Library, State Teachers College (Paterson), and the historical societies of Atlantic, Camden, Gloucester, Passaic, Salem and Sussex Counties.

Services: Used almost exclusively to facilitate borrowing among contributing libraries, although occasionally outside inquiries are received.

References: Sheppard, Fannie. "New Jersey Union Catalog," in: *New Jersey Library Bulletin*, VI (1937), 12-15.

10. NASSAU COUNTY (N.Y.) LIBRARY ASSOCIATION. Union Catalog, Hempstead Public Library, Hempstead, N.Y.

In charge: Adelaide M. Faron, Librarian; Marjorie J. Muller, Supervisor of Union Catalog.

Hours: 12 hours daily, except Sunday.

Scope: Nassau County, New York.

The catalog was organized in 1934, and became the chief instrument of cooperation of the Nassau County Library Association. The catalog contains about 58,700 main entries and some 8000 title entries. Foreign works are filed in a separate file, and all fiction and purely reference works are excluded. The following 31 libraries are included: Amityville,* Baldwin, Bethpage, Cedarhurst, East Rockaway,* Floral Park, Franklin Square, Freeport, Glen Cove, Glenwood Landing,* Great Neck, Hempstead, Hicksville, Locust Valley, Long Beach, Lynbrook, Malverne, Merrick, Mineola, New Hyde Park, Oceanside, Oyster Bay, Port Washington, Rockville Center, Sea Cliff, Stewart Manor, Valley Stream, Adelphi College, Hofstra College, and Nassau County Law Library. (*These libraries have withdrawn from the Association recently.)

Services: Locates books for interlibrary loan.

11. WESTCHESTER (N.Y.) LIBRARY ASSOCIATION. Union Catalog, Room 701, County Office Building, White Plains, N.Y.

In charge: Mrs. Elizabeth C. Seely.

Hours: daily, 10:00 A.M.-1:00 P.M.

Scope: Westchester County, N.Y.

Catalog was organized in February 1939, and consists now of approximately 215,000 entries. The following 38 libraries are included: *Public libraries:* Bedford Hills, Briarcliff, Bronxville, Chappaqua, Croton-on-Hudson, Dobbs Ferry, Harrison, Hastings, Irvington, Katonah, Larchmont, Mamaroneck, Montrose, Mount Kisco, Mount Vernon, New Rochelle, North Castle (in Armonk), Ossining, Pleasantville, Port Chester, Rye, Scarsdale, Silver Lake, Tarrytown, Tuckahoe, White Plains, Yonkers; *Academic libraries:* Briarcliff Junior College, College of New Rochelle, Concordia Collegiate Institute, Sarah Lawrence College; *Special libraries:* Boyce Thompson Institute, Burroughs Wellcome, Grasslands Medical Society, Westchester County Health Department, Westchester County Historical Society, Westchester County Supreme Court.

Catalog excludes juvenile literature; maintains separate file for periodicals.

Services: Locates books for interlibrary loans, arranges for exchange of surplus and duplicate book stock among libraries, prepares monthly reports of books not located, furnishes lists of books on any requested subject.

12. UNIVERSITY OF NORTH CAROLINA LIBRARY. Duke and State Union Catalog, Chapel Hill, N.C.

In charge: Elizabeth H. Thompson, Head Cataloger.

Hours: daily, 8:15 A.M.-11:00 P.M.; Sunday, 2:00-6:00 P.M.

Scope: North Carolina.

The catalog was started in 1934 as an exchange with Duke University. It now includes over 242,000 entries from: Duke, North Carolina State College of Agriculture and Engineering, Wake Forest College, Agricultural and Technical College of North Carolina, Guilford College, Bennett College, St. Augustine's College, Johnson C. Smith University, and Charlotte Public Library.

Duke excludes newspapers, Duke theses, and current U.S. entries. Analytics for certain serial sets are exchanged, when desired. State College excludes newspapers and U.S. entries. Wake Forest covers only material on Baptists; Guilford College, material on the Quakers. The four Negro colleges exclude all but entries for books about the Negro.

Services: Book location service through reference department and other divisions of the library; daily messenger service with Duke University for book loans; cooperative book selection with Duke; checking of Library of Congress Union Catalog weekly search lists.

References: Branscomb, B. H. and Downs, R. B. "A Plan for Library Cooperation," *School and Society*, XLII (1935), 64-66; Downs, R. B. and Branscomb, B. H. "A Venture in University Library Cooperation," *Library Journal*, LX (1935), 877-79.

13. WESTERN RESERVE UNIVERSITY LIBRARY. Cleveland Regional Union Catalog, Thwing Hall, Western Reserve University, Cleveland, Ohio.

In charge: Mildred Sommer, Supervisor.

Hours: weekdays, 8:30 A.M.-10:00 P.M.; Saturdays, 8:30 A.M.-5:00 P.M.

Scope: Cleveland, university libraries in the state of Ohio, and the University of Michigan Library.

The Cleveland Regional Union Catalog was organized in March 1936, and, although the original filming of the cards is finished, a WPA project is still engaged in the copying and filing of the cards. The catalog includes 42

libraries, and the total number of cards is somewhat over 2,000,000. The yearly additions are about 70,000 cards. The libraries represented are: *College and university libraries*: Case School of Applied Science, Cleveland College, Cleveland School of Art, Fenn College, Hebrew Union College, John Carroll University, Miami University, Notre Dame College, Oberlin College, Ohio State University, Ohio Wesleyan University, University of Cincinnati, University of Michigan, Ursuline College, Western Reserve University, Xavier University; *Public libraries*: Cleveland, Cleveland Heights, East Cleveland, Garden Center, Hayes Memorial, Lakewood, Nela Park; *Institutional and special libraries*: Benedictine High School, Clements Library, Cleveland Board of Education, Cleveland Museum of Art, Cleveland Museum of Natural History, Federal Reserve Bank of Cleveland, Medical Library (Allen Memorial), Rowfant Club, The Temple, Western Reserve Historical Society.

Services: Service limited chiefly to the location of books upon request, in which both the supervisor and the regular library staff participate.

References: "Union Catalog of the Libraries of Cleveland and Vicinity," in *Western Reserve University, Annual Reports* (1935-36), p.127-28 (1936-37), p.69-70 (1938-39), p.37, etc.; Wilson, M. F. "Cleveland's Union Catalog," *Library Journal*, LXI (1936), 801-02.

14. **OHIO STATE LIBRARY.** Ohio Union Catalog, State Office Building, Columbus, Ohio.

In charge: Paul A. T. Noon, State Librarian; Mary E. Wilson, Supervisor.

Scope: Ohio.

The Ohio Union Catalog was organized in October 1937, and embraces primarily the public libraries of the state. It now contains about 2,000,000 cards from the following libraries: *Public libraries*: Akron, Ashtabula, Ashtabula Harbor, Bexley, Canton, Cincinnati, Cleveland, Cleveland Heights, Columbus, Dayton, East Cleveland, Elyria, Fremont, Grandview, Hamilton, Lakewood, Lima, Lorain, Mansfield, Massillon, Maumee, Middletown, New Philadelphia, Salem, Sandusky, Springfield, Toledo, Warren, Wooster, Xenia, Youngstown; *Miscellaneous*: Cincinnati Historical and Philosophical Society, Cincinnati Museum, Hayes Memorial Library, Lloyd's Library, Ohio State Archeological and Historical Society, Ohio State Library.

The following six libraries are not included in whole, but only for their unusual holdings: Bowling Green, Chillicothe, Cuyahoga Falls, Findlay, South Salem, Steubenville.

The catalog is selective in that it excludes juvenile and adult fiction, except fiction and classics of 1700-1800 and foreign fiction and translations. The main-entry catalog is augmented by secondary entries, and by special-

subject files "pertinent to the particular library photographed," such as rubber for Akron, steel for Youngstown, etc. A separate file is maintained of cards from the genealogy collection of the Cincinnati Public Library.

Services: Service consists for the most part of locating material for interlibrary loans and, because of its somewhat inaccessible location, the catalog is consulted chiefly by mail, by telephone, and through the staff of the State Library.

References: "Ohio Union Catalog," *Wilson Bulletin*, XII (1938), 472.

15. OREGON STATE COLLEGE LIBRARY. Union Catalog of the Oregon State System of Higher Education, Oregon State College, Corvallis, Oregon.

In charge: Anne W. Campbell, Union Cataloger; Lucy M. Lewis, Director of Libraries.

Hours: weekdays, 8:00 A.M.-5:00 P.M.; Saturdays, 8:00 A.M.-12:00 noon.

Scope: Oregon.

This union catalog was organized in 1932, to promote closer cooperation among the six college and university libraries belonging to the Oregon State System of Higher Education. The total number of cards on November 1, 1940, was 286,572, and the average number of cards added per year is about 5,200. As, however, nearly 4,000 cards are withdrawn each year, the net growth of the catalog per year is about 1,200 cards. The libraries represented are: University of Oregon, University of Oregon Medical School, Oregon State College, Oregon Normal School (Monmouth), Eastern Oregon Normal School (La Grande), Southern Oregon Normal School (Ashland).

Services: The union catalog is used almost exclusively as a tool to promote cooperation and to effect economies in library service within the State System. It both locates books and arranges for interlibrary loans, and as all orders for books are cleared through a central order department at the State College, they are first checked in the Union Catalog to avoid unnecessary duplication.

References: Oregon State System of Higher Education. *Biennial Report*, 1933- ; Oregon State College. *Annual Catalog*, 1933- ; University of Oregon. *Annual Catalog*, 1933- .

16. UNION LIBRARY CATALOGUE OF THE PHILADELPHIA METROPOLITAN AREA, Fine Arts Building, University of Pennsylvania, Philadelphia, Pennsylvania.

In charge: Rudolf Hirsch, Director; Arthur B. Berthold, Associate Director; Mrs. Ruth W. Linderoth, Consultant.

Hours: weekdays, 9:00 A.M.-5:00 P.M.; Saturdays, 9:00 A.M.-12:30 P.M.

Scope: Philadelphia and vicinity.

The Catalogue was organized in 1936² and up to October 1940, was located in the building of the Historical Society of Pennsylvania. It was removed to its present quarters to make the research aids of the Library of the University of Pennsylvania more readily accessible to the union catalog staff. The catalog contains about 3,000,000 cards (exclusive of duplicates) and receives about 70,000 additions annually. In all, 153 libraries are included, although at present six of them have been either discontinued or their holdings distributed among other local libraries.

The active libraries are: (1) *College, university and professional schools*: Beaver, Bryn Mawr, Chestnut Hill, College of Pharmacy and Science, Crozer Theological Seminary, Curtis Institute of Music, Drexel Institute, Dropsie, Girard, Gratz, Hahnemann Medical College, Haverford, Jefferson Medical College, LaSalle, Lutheran Theological Seminary, Pennsylvania Military College, Pennsylvania School of Social Work, Pennsylvania State College of Optometry, Protestant Episcopal Church Divinity School, Rosemont, School of Horticulture for Women, St. Joseph's, State Teachers College, Swarthmore, Temple, University of Pennsylvania (including Biddle Law Library, Lippincott Library, and 17 departmental libraries), Villanova, Westminster Theological Seminary; (2) *Public and recreational libraries*: Abington Library Society (Jenkintown), Apprentices' Free Library, Armstrong Association, Athenaeum, Carpenters' Company, Friends' Free Library (Germantown), German Society of Pennsylvania, Hatboro Union Library Company, Library Company of Philadelphia, Loyal Legion of the United States, Mercantile Library, Newtown Library Company, Philadelphia Free Library, Plays and Players Club, Poor Richard Club, Rittenhouse Club, Seamen's Church Institute, Starr Center, University Club, U.S. Naval Home, Young Men's and Young Women's Hebrew Association; (3) *Institutional and special libraries*: Academy of Natural Sciences, Academy of the New Church (Bryn Athyn), American Baptist Historical Society, American Baptist Publication Society, American Entomological Society, American Philosophical Society, American Sunday School Union, American-Swedish Historical Museum, Atlantic Refining Co., Automobile Club of Philadelphia, N. W. Ayer

²The Union Library Catalogue was started purely as a location catalog, but it was soon realized that the possibilities for service were considerably beyond that basic function. To investigate the needs of local libraries and to provide a plan for their satisfaction, a Bibliographical Planning Committee was organized in the spring of 1939, with the aid of a grant from the Carnegie Corporation of New York. First under the direction of Mr. Paul Vanderbilt, and since the fall of 1939 under that of Miss Mary Louise Alexander, the Committee has completed a thorough study of the library resources and needs of the Philadelphia metropolitan area. In September 1940, a special grant from the Carnegie Corporation enabled the Union Library Catalogue and the Bibliographical Planning Committee to join forces for an experimental period of sixteen months in a Philadelphia Bibliographical Center and Union Library Catalogue. The purpose of this joint enterprise is to put in effect the recommendations of the Bibliographical Planning Committee. Miss Alexander is director of planning, and Mr. Rudolf Hirsch is director of operations.

& Son, Baldwin Locomotive Works, Bar Association of Philadelphia, Biochemical Research Foundation of the Franklin Institute, Board of Education Pedagogical Library, Bureau of Municipal Research, Carl Schurz Memorial Foundation, Chester County Historical Society, Civic Club, College of Physicians, Curtis Publishing Company, Delaware County Historical Society, Dental Cosmos, Electric Storage Battery Company, Engineers' Club, Federal Reserve Bank, Federation of Jewish Charities, Fidelity Mutual Life Insurance Company, Franklin Institute, Friends' Historical Library (Swarthmore), Geographical Society of Philadelphia, Graphic Sketch Club, Hirst Free Law Library, Historical Society of Frankford, Historical Society of Montgomery County, Historical Society of Pennsylvania, E. F. Houghton & Co., Jeanes Hospital, Jewish Hospital, Lankenau Hospital, Misericordia Hospital, Moore Institute of Art, Science and Industry, Numismatic and Antiquarian Society of Pennsylvania, Pennsylvania Academy of Fine Arts, Pennsylvania Economic League, Pennsylvania Horticultural Society, Pennsylvania Hospital (including Institute of Mental Hygiene), Philadelphia Commercial Museum, Philadelphia County Medical Society, Philadelphia Electric Company, Philadelphia General Hospital, Philadelphia Health Council and Tuberculosis Committee, Philadelphia Housing Association, Philadelphia Insurance Library, Philadelphia Museum of Art (including School of Industrial Art), Philadelphia Rapid Transit Company, Presbyterian Historical Society, Protestant Episcopal Church Diocesan Library, Provident Mutual Life Insurance Company, Regional Planning Federation, F. P. Ristine & Company, Rodin Museum, School of the Bible, Schwenckfelder Historical Library, W. B. Stephens Memorial Library, Theosophical Society—Hermes Lodge, United Gas Improvement Company, U.S. Allegheny Forest Experiment Station, U.S. Naval Aircraft Factory, U.S. Soil Conservation Service (Upper Darby), Wagner Free Institute of Science, Wistar Institute of Anatomy and Biology, Women's International League for Peace and Freedom, Zoological Society of Philadelphia.

The Union Library Catalogue maintains, in addition, the following supplementary files: (1) Subject Bibliographies, containing about 35,000 cards arranged according to the Z classification of the Library of Congress; (2) Union Catalog of Periodicals in Libraries of Philadelphia and Vicinity not Included in the Union List of Serials, about 9,000 cards, and still in process of compilation; (3) Special Collections in Philadelphia Libraries, a card index describing 2,000 special collections; (4) American Imprints in Philadelphia Libraries, 1639-1876—a duplicate set of cards copied for the American Imprints Inventory, about 100,000 entries, as yet only partly organized; (5) Union List of Material Available on Microfilm—now in process of compilation and meant to embrace the entire country; (6) Chronological Index to American Poetry and Drama to 1800, a file of about 2,000 cards. There is

also a small reference collection of subject bibliographies, general reference works, and library reports of about 500 volumes.

Services: Location service by mail, telephone, and personal application; circularizing of 14 research libraries and the Library of Congress Union Catalog for unlocated material; publishing of a *Quarterly Check List of Desiderata* and a *News Letter* on general library cooperation. There is also some effort to promote cooperative book selection, subject specialization, and to act as a clearing house on all related bibliographical and library problems.

References: Vanderbilt, P. *Brief Account of the Principles and Formative Period of the Union Library Catalogue in Philadelphia*. Philadelphia, 1937; Hopkins, F. M. "Philadelphia Union Catalog," *Publishers' Weekly*, CXXXVII (1940), 2235; Berthold, A. B. "Editing a Union Catalog," *Library Journal*, LXIII (1938), 222-23; Björkbom, C. "Två samkataloger: The Library of Congress Catalog och the Union Catalogue of Philadelphia," *Nordisk Tidskrift för Bok- och Biblioteksväsen*, XXVI, No.1 (1939), 28-32; Tauber, M. F. "Other Aspects of Union Catalogs," *Library Quarterly*, IX (1939), 411-31.

17. BROWN UNIVERSITY LIBRARY. Union Catalog of Providence Libraries, Brown University Library, Providence, Rhode Island.

In charge: Norman L. Kilpatrick, Head of Catalog Department.

Hours: daily, except Sunday, 9:00 A.M.-5:00 P.M.

Scope: Rhode Island (although at present covering mainly Providence libraries).

Catalog was organized in 1935, and now consists of about 1,125,000 main entries. The following libraries are included: Brown University, Elmwood Public Library, John Carter Brown, Masonic Library, Newport Historical Society, Providence Athenaeum, Providence College, Providence Engineering Society, Providence Public Library, Rhode Island College of Pharmacy and Allied Sciences, Rhode Island Historical Society, Rhode Island Medical Society, Rhode Island School of Design, Rhode Island Law Library, Rhode Island State Library, Shepley Library (now incorporated with Rhode Island Historical Society). Included also are cards from the Library of Congress (Brown University is a depository), Folger, Harvard, Michigan, Vatican, and Wesleyan University.

Catalog excludes juvenile books, and fiction published after 1876. When finished, the union catalog is to include all the important libraries of the state. Library of Congress cards are used as basic file.

Services: Answers questions by mail, telephone, and upon personal application. Items not found in the Library of Congress depository catalog are

reported to the Union Catalog at Washington.

18. VANDERBILT UNIVERSITY. Union Catalog of Libraries in Nashville, Joint University Libraries, Kirkland Hall, Vanderbilt University, Nashville, Tennessee.

In charge: A. F. Kuhlman, Director; Irene M. Doyle, Head of Catalog Department.

Hours: daily, 8:00 A.M.-10:00 P.M.; Sunday, 2:00-5:00 P.M.

Scope: Nashville area (may be extended).

The catalog was started in the summer of 1936. At present it contains approximately 226,000 entries. The following libraries are included: Vanderbilt University (including general and departmental libraries, School of Religion, School of Religion Circulating Library, School of Medicine), George Peabody College for Teachers, Nashville Public Library, Scarritt College, Tennessee State Library, Fisk University, Meharry Medical College.

The catalog contains all cataloged material in the libraries represented. All entries for separates are in single author alphabet. Serial entries are kept in separate alphabet.

Services: Answers inquiries by telephone, mail, and upon personal application; maintains photographic service; expects to prepare a special union list of serials in Nashville libraries; promotes cooperative purchasing and interlibrary lending.

References: Joint University Libraries. *Annual Report of the Librarian*, 1936- ; Kuhlman, A. F. "The Union Catalog of Libraries of Nashville," in Southeastern Library Association, *Papers and Proceedings* (1936), p.31-32.

19. VERMONT FREE PUBLIC LIBRARY COMMISSION. Vermont State-Wide Union Library Catalog, Vermont Free Public Library Commission, Montpelier, Vermont.

In charge: Eleanor Wells, Assistant Secretary.

Hours: daily, 8:00 A.M.-12:00 noon, 1:00-4:00 P.M.; Saturday, 8:00 A.M.-12:00 noon.

Scope: Vermont.

The union catalog was organized in March 1939, and aims to include every library in the state which has a catalog or a shelf list.

The following libraries are represented: (1) *Public and recreational libraries:* Albany, Alburg, Arlington, Barnard, Barnet, Barre, Barton, Bennington, Benson, Bethel, Bradford, Brandon, Brattleboro, Brighton Island, Bristol, Burlington, Castleton, Chelsea, Chester, Chittenden, Clarendon, Col-

chester, Concord, Craftsbury Common, Danby, Danville, Derby, Dorset, East Burke, East Corinth, East Craftsbury, Essex Center, Fair Haven, Glover, Greensboro, Hardwick, Hartford, Hyde Park, Irasburg, Isle La Motte, Jamaica, Jericho, Johnson, Ludlow, Lunenburg, Lyndon Center, Lyndonville, Manchester, Mendon, Middlebury, Middletown Springs, Montpelier, Morrisville, New Haven, Newbury, Newfane, Newport, North Bennington, North Hero, North Thetford, Northfield, Orwell, Pawlet, Peacham, Pittsford, Plainfield, Pomfret, Proctor, Putney, Randolph, Reading, Readsboro, Richford, Rochester, Rockingham, Rutland, St. Albans, St. Johnsbury, Sharon, Shelburne, Shoreham, Springfield, Stockbridge, Stowe, Swanton, Thetford, Tunbridge, Underhill, Vergennes, Vernon, Waitsfield, Wallingford, Wardsboro, Washington, Waterbury, Waterford, Weathersfield, Wells, West Burke, West Dummerston, West Hartford, West Rutland, West Westminster, West Windsor, Westfield, Westminster, Weston, Williamstown, Wilmington, Windsor, Woodstock; (2) *Academic and institutional libraries*: Bennington College, Goddard College, Green Mountain Junior College, Middlebury College, National Life Insurance Co. (Montpelier), Norwich University, Old Academy (Bennington), Quechee Association (Hartford), St. Michael's College, Saxton's River Academy (Rockingham), South Ryegate Women's Missionary Society, State Normal School (Castleton, Johnson, and Lyndon Center), University of Vermont (including Wilbur Library), Vermont Church Council (Burlington), Vermont Historical Society, Wilder Club (Hartford).

Services: Limited at the present stage to the location of books and periodicals by mail, telephone, and upon personal application.

References: "Union Catalog for Vermont," *Bulletin of the Vermont Free Public Library Commission and State Library*, XXXIV (1938), 46-47.

20. **PACIFIC NORTHWEST BIBLIOGRAPHIC CENTER**, University of Washington Library, Seattle, Washington.

In charge: Charles W. Smith, Director.

Scope: Pacific Northwest (Idaho, Montana, Oregon, Washington, British Columbia).

The Bibliographic Center is sponsored by the Pacific Northwest Library Association. Work on the union catalog began in the summer of 1940. As yet only a few libraries have been copied, but the original plan provides for the inclusion of the following 27 libraries (about 2,424,700 cards): *British Columbia—Provincial Library (Victoria), University of British Columbia, Vancouver and Victoria Public Libraries; Idaho—Boise Public Library, University of Idaho (including Southern Branch); Montana—Montana Historical Society, Montana School of Mines, Montana State College, University of Montana; Oregon—Library Association of Portland, Oregon Historical So-*

society, Oregon State College, Oregon State Library, Reed College, University of Oregon, Willamette University; *Washington*—College of Puget Sound, Seattle, Spokane, Tacoma, and Walla Walla Public Libraries, Washington State College, Washington State Library, University of Washington, Whitman College.

Plans provide for the inclusion of all cataloged materials.

Services: Not yet organized.

References: MacDonald, M. R. "Notes on the Proposed Union Catalog," *PNLA Quarterly*, III (1939), 145-47; Smith, Charles W. "P.N.L.A. Receives \$35,000 Grant," *PNLA Quarterly*, IV (1940), 85.

III. SUBJECT UNION CATALOGS: NATIONAL

21. ARMY MEDICAL LIBRARY. Union Catalog of Medical Portraits, Army Medical Library, 7th Street and Independence Ave., S.W., Washington, D.C.

In charge: Colonel Harold W. Jones, Librarian.

Subject: Medical portraits and illustrations.

Scope: The catalog was organized in 1939, and at present consists of approximately 75,000 cards (100,000 references) from four medical libraries. The entries are for portraits of men and women of note in medical and related fields. Also caricatures, illustrations of hospitals and other medical buildings, entries for portraits in books in the Army Medical Library, and about 56,000 references on microfilm from the New York Academy of Medicine, now in process of being transferred to cards. The libraries included are: Army Medical Library, John Crerar, College of Physicians and Surgeons, New York Academy of Medicine.

Services: Used chiefly for illustrations and by lecturers. Copies located and supplied in photostat and photograph form both in actual size and enlarged.

22. HOWARD UNIVERSITY LIBRARY. Union Catalog of Titles By and About the Negro, Moorland Foundation, Howard University Library, Washington, D.C.

In charge: Mrs. Dorothy B. Porter, Supervisor, Moorland Foundation.

Subject: The Negro.

Scope: The catalog was started in 1938 with the assistance of a WPA project, and the plans included the gathering of entries from several libraries for (a) books by Negro authors, (b) books about the Negro, (c) books not on the Negro but with references to the Negro, and (d) books which have general background value, such as those on the Civil War, Africa, Haiti,

Brazil, etc. There are now 22,766 main-entry cards, and new references are regularly purchased from the Library of Congress. Approximately 700 cards were added in 1940-41. The following libraries are represented with pertinent material: Library of Congress, Drew University, Fisk University, Hampton Institute, St. Augustine's College (North Carolina), Prairie View State Normal School (Texas), Brookline, Cleveland, and Houston Public Libraries, and the private library of Henry P. Slaughter of Washington, D.C.

Approximately 3,555 duplicate cards are being held for a contemplated subject union catalog.

Services: Used chiefly by students and faculty of Howard University for locations and bibliographical information.

23. **LIBRARY OF CONGRESS.** Union Catalog of Census and Population Materials, Census Library Project, Library of Congress, Washington, D.C.

In charge: J. H. Shera, Supervisor.

Subject: Census, population and demographic materials.

Scope: This union catalog, begun in 1939, aims to give adequate coverage to the census, population and demographic materials of all countries of the world, as found in some of the more important libraries specializing in these subjects in the United States. It is still in process of compilation, but about 10,000 cards have been received from: Library of Congress, New York Public Library, Metropolitan Life Insurance Company, U.S. Government Printing Office, and the Scripps Foundation for Population Research. The file is to be arranged both by author and by subject.

Services: Chiefly intended for current location service, but will be used also for the preparation of check lists, etc. Two such lists are reported to be now in preparation: (1) Censuses of Latin American Countries; (2) Definitive Bibliography of U.S. Census Publications.

24. **BUREAU OF RAILWAY ECONOMICS.** Union Catalog of Railway Economics, Bureau of Railway Economics, Transportation Building, Washington, D.C.

In charge: Richard H. Johnston, Librarian.

Subject: Railroad literature.

Scope: The catalog is the outgrowth and continuation of a bibliography compiled by the Bureau and published by the University of Chicago Press in 1912. It is entitled *Railway Economics, a Collective Catalogue of Books in Fourteen American Libraries*. The libraries included are: Bureau of Railway Economics, Library of Congress, Interstate Commerce Commission, John Crerar, New York Public Library, Engineer-

ing Societies Library, and the following universities: Chicago, Columbia, Harvard, Illinois, Michigan, Pennsylvania, Stanford (Hopkins Railway Library), Wisconsin, and Yale. These same libraries continue to send cards from time to time.

The union catalog consists of three separate files: (1) author file of about 45,000 cards; (2) subject file of about 55,000 cards; and (3) annual reports of the various railroad companies of about 1500 cards.

Services: Clearing house for information on railroads and railroad administration and problems. A fairly well-defined cooperative purchasing agreement exists whereby the Bureau itself concentrates on the economic material, the Library of Congress on the technical, and the Interstate Commerce Commission on legal material pertaining to railroads.

25. UNIVERSITY OF CHICAGO. Oriental Institute, University of Chicago, 1155 East Fifty-Eighth Street, Chicago, Ill.

In charge: Johanne Vindenas, Librarian.

Subject: Orientalia, especially Egyptology and Assyriology.

Scope: Strictly speaking, there is no special union catalog at the Oriental Institute apart from the catalog of the library itself. It is the practice of the staff, however, to insert cards for works of special interest to the Institute in its official catalog from a number of libraries, bibliographies and catalogs. In this manner a union catalog has been built up for several years, but without any records being kept as to the locations added. The libraries from which cards are most frequently added are: Library of Congress, John Crerar, Field Museum, Newberry, Art Institute of Chicago, Peabody Museum (at Harvard), Princeton, and Yale.

Services: Both subject and location service.

26. ST. BENEDICT'S COLLEGE. Union Catalog of Catholic Materials, Abbey Library, St. Benedict's College, Atchison, Kansas.

In charge: Rev. Colman J. Farrell, Head Cataloger.

Subject: The Catholic Church.

Scope: The catalog was established in 1933, primarily as an aid in the identification and cataloging of early and difficult works by and about the Catholic Church. According to a statement received in August 1941, it now contains about 60,000 cards from the following libraries: Vatican (complete), British Museum Additions (1930 to date, mounted on cards), Library of Congress (cards pertaining to the Catholic Church), Catholic University of America (all cards issued by the Catholic cooperative cataloging service).

A separate file is maintained for cards from Mt. Saint Scholastica Col-

lege, Atchison (1939 to date), and St. Benedict's College (main entries and analytics for all cataloged material).

27. AMERICAN SCANDINAVIAN FOUNDATION. Scandinavian Union Catalog, American Scandinavian Foundation, 116 East Sixty-Fourth St., New York, N.Y.

In charge: J. B. C. Watkins, Assistant Secretary.

Subject: Scandinavica, works by Scandinavians and about Scandinavian countries and subjects.

Scope: The catalog was organized in 1921, and for many years was located at Harvard University Library. It includes books and periodicals in the Scandinavian languages and in translation held by various libraries in the United States. The following libraries are represented: Library of Congress, Harvard, Lutheran College (Decorah, Iowa); partially represented are: Art Institute of Chicago, Augustana College (Rock Island, Ill.), Chicago Public Library, Cornell, John Crerar, Universities of Minnesota, Texas, and Vermont, and Yale.

The cards for books and other material, consisting of about 65,000 cards are arranged in three files: Author file, Continuations file, and Title entries (includes Sagas, Periodicals, and Government and Society publications). Special effort has been made to secure records of Scandinavian periodical holdings. The following libraries have contributed their records (some incompletely): *College and university libraries:* Army War College, Brown, Bryn Mawr, Colorado College (Colorado Springs), Columbia, Dartmouth, Gustavus Adolphus College (Minnesota), Harvard, Haverford, Illinois, Indiana, Iowa State College, Iowa State University, Johns Hopkins, Massachusetts Institute of Technology, Michigan, Minnesota, North Dakota, Northwestern, Pennsylvania, Princeton, Toronto, Tufts, Washington (Seattle), Yale; *Public libraries:* Boston, Brockton, Chicago, Detroit, Grand Rapids, Hartford, Madison, Minneapolis, New York, Newark, Pittsburgh, Providence, St. Paul, Seattle; *Miscellaneous:* libraries of 12 government departments in Washington, Library of Congress, Essex Institute, Franklin Institute, Indiana State Library, John Crerar, Newberry, Wagner Free Institute of Science.

Services: Serves as a clearing house on all matters pertaining to Scandinavian literature.

References: "Scandinavian Union Catalogue," *American Scandinavian Review*, XXV (1937), 81-82.

IV. SUBJECT UNION CATALOGS: REGIONAL AND LOCAL

28. CONNECTICUT STATE LIBRARY. American Imprints in Connecticut Libraries, Connecticut State Library, Hartford, Conn.

In charge: James Brewster, State Librarian; Ruth B. McLean, Head Cataloger.

Subject: American imprints to 1876.

Scope: This catalog is a direct outgrowth of the activities of the American Imprints Inventory which began to copy the cards for early American imprints in 1938. A duplicate set of about 100,000 cards and slips was turned over to the State Library early in 1941, and a special WPA project is still under way copying and adding new titles. The following libraries are represented: *Public libraries:* Bridgeport, East Haddam, Meriden, New Britain, New Haven, New London, Norwich (Otis Library), Southport, Winsted; *Colleges and universities:* Connecticut College, Hartford Seminary, Trinity College, Wesleyan University, Yale (including Divinity and Law Schools); *Miscellaneous:* Connecticut State Library, Middlesex County Historical Society, New London County Historical Society, Norwich Free Academy, Watkinson Reference Library.

29. E. I. DU PONT DE NEMOURS AND COMPANY. Technical Library, Du Pont Building, Wilmington, Delaware.

In charge: Mrs. Marie S. Goff, Librarian.

Subject: Periodicals.

Scope: This is a union catalog of the periodical holdings of all major libraries in Wilmington. Included are the following libraries: Atlas Powder Co., Delaware Academy of Medicine, Hercules Powder Co., University of Delaware (Newark), Wilmington Institute Free Library, all the libraries of the Du Pont Company, and a few others.

30. ROLLINS COLLEGE LIBRARY. Union Catalog of Floridiana, Rollins College Library, Winter Park, Florida.

In charge: Della F. Northey, Cataloger; Dr. A. J. Hanna, Chairman of the Advisory Committee.

Subject: Floridiana.

Scope: Florida (during part of the Spanish period, this designation included roughly the territory extending from the Chesapeake Bay to the Rio Grande).

Dr. A. J. Hanna, Chairman of the Advisory Committee, describes the union catalog as follows: "It is the purpose of the catalog to be a comprehensive index or guide to materials relating to Florida. It possesses two major plans: (1) to list existing records relating to Florida, (2) to indicate where a copy or copies may be consulted. The word 'Floridiana' as used in

this connection, includes all records published and unpublished, treating of the geographic division recognized at any time as Florida, including (1) printed books, pamphlets, reports, public records and documents, (2) newspapers and other periodicals published within the state and newspaper and other articles about Florida published elsewhere, (3) manuscripts, diaries, letters, (4) maps and charts, (5) pictures, photographs and other likenesses, motion picture film and microfilms, (6) relics, memorabilia and other rariora."

This is, unlike other union catalogs, a dictionary catalog and it was organized in March 1937. At present it consists of 3,362 main-entry cards, but the total number of cards in the dictionary catalog is 14,500. Cards are received from a large number of libraries, but the following have contributed most: (1) *Florida libraries*: Jacksonville and Orlando Public Libraries, Rollins College, Florida State College for Women, Florida Historical Society; (2) *Libraries outside the state: Universities*: Brown, California, Catholic, Columbia, Georgetown, Harvard, Johns Hopkins, Michigan, Pennsylvania, Princeton, South Carolina, Texas, Yale; *State libraries*: Mississippi, New York, Rhode Island, Wisconsin State Law; *Historical societies*: New York, Pennsylvania, South Carolina; *Miscellaneous*: Academy of Natural Sciences (Philadelphia), American Antiquarian Society, American Philosophical Society, Essex Institute, Hispanic Society, Huntington Library, John Carter Brown, New York Public Library, Pan-American Union, Smithsonian Institution.

There are definitive listings for: (1) Irving Bacheller, (2) Prince Achille Murat, (3) Florida fiction, (4) Constance Fenimore Woolson, (5) Rex Beach, (6) Florida archaeology, (7) Andrew Turnbull, (8) Jonathan Dickinson, (9) John and William Bartram.

Services: Acts as clearing house on all material pertaining to Florida.

References: Hanna, A. J. "Union Catalog of Floridiana," *Proceedings of the Inter-American Library and Bibliographical Association*, II (1939), p.67-74; Hasbrouck, A. "Union Catalog of Floridiana," *A.L.A. Bulletin*, XXXII (1938), 65.

31. INSTITUTE OF MEDICINE OF CHICAGO. Union Card Catalog of Medical Literature in Chicago, John Crerar Library, 86 East Randolph Street, Chicago, Ill.

In charge: Medical Reference Librarian.

Subject: Medical literature.

Scope: Chicago.

The catalog was organized in 1932 under the general supervision of the Institute of Medicine of Chicago and placed in the John Crerar Library for

service. It now contains about 125,000 cards from the following libraries: John Crerar; *Universities and medical schools*: Chicago, Illinois, Northwestern, Rush Medical College, Loyola College. Only the medical libraries of these institutions are represented.

Services: General reference on medical subjects.

References: Kampmeier, O. F. "Union Catalogue of Medical Literature in Chicago Now Open for Reference," *Medical Library Association Bulletin*, XXIV (1936), 169-71.

32. UNIVERSITY OF CHICAGO. Union Catalog of Art Books in Chicago, Art Department Library, University of Chicago, Chicago, Ill.

In charge: Ruth Schoneman, Editor.

Subject: Fine arts.

Scope: The union catalog was started with aid of a WPA grant in August 1939, and is still in process of compilation. The following libraries are being included: Chicago Art Institute (Burnham and Ryerson Libraries), Chicago Public Library, Newberry, University of Chicago. "It is hoped that John Crerar, Field Museum of Natural History and Chicago Historical Society libraries will be included."

The catalog *excludes*: periodicals, photography, motion pictures, music, drama, the dance, book arts (typography), guide books (Baedeker, Murray, etc.), and Japanese illustrated books "since the largest and finest collection of this [latter] material is in the Art Institute of Chicago, and the best examples of this collection are fully described in the bibliography by Kenji Toda."

33. COLLEGE OF JEWISH STUDIES. Union Catalog of Jewish Literature in the Chicago Metropolitan Area, College of Jewish Studies, Chicago, Illinois.

In charge: Dr. Fritz Bamberger, Board of Jewish Studies, 220 South State Street, Chicago, Ill.

Subject: Jewish literature.

Scope: Chicago.

This is an author or main-entry catalog and is to be supplemented by a subject catalog. The catalog was started in 1940 with the aid of a WPA grant and is still in process of compilation. It excludes (a) literature based on the Bible dealing with problems of Christian theology, and (b) translations of the Bible designated for purely Christian purposes. Approximately 25,000 cards have been copied and the following libraries are included: College of Jewish Studies, Emil G. Hirsch Reference Library, Hebrew Theological College, Jewish People's Institute, John Crerar, University of Chicago, Newberry, Chicago Public Library, Garrett Biblical Institute (Northwestern University).

Services: Not yet in use, but intended to serve as a basis for the cooperative purchase of Jewish materials.

34. CHICAGO LAW INSTITUTE. Union Catalog of Law Books in the Chicago Area, Room 1025, County Building, 118 North Clark Street, Chicago, Ill.

In charge: Charles A. McNabb, Cataloger.

Subject: Law material.

Scope: Chicago and vicinity.

The catalog was organized in 1938 with the assistance of a WPA grant and is still in process of compilation. It consists of an author and a subject file (under subject headings) and contains about 60,000 cards in each file. The following law libraries are included: Chicago Law Institute, Chicago Bar Association, Northwestern University, University of Chicago.

Services: Law reference work.

References: King, W. L. "Chicago Union Catalogue of Law Books," *Chicago Bar Record*, XXI (1940), 303-04.

35. GOOD SHEPHERD COMMUNITY CENTER. Union Catalog of Printed Material on the Negro, Good Shepherd Community Center, Chicago, Illinois.

In charge: Mrs. Elizabeth Wimp, Unit Supervisor (Address: 1400 West Washington Blvd., Chicago, Ill.).

Subject: The Negro.

Scope: Chicago.

Catalog includes material on all phases of Negro life and achievements in the following libraries: Chicago Public Library (including George Cleveland Hall), John Crerar, Newberry, University of Chicago. Approximately 40,000 main-entry cards have been gathered, and about 100,000 more cards have been filed in title and subject files.

36. UNIVERSITY OF KENTUCKY. Union Catalog of Americana, University of Kentucky Library, Lexington, Kentucky.

In charge: Margaret I. King, Librarian.

Subject: American history.

Scope: Kentucky.

The catalog was organized in 1929 as an aid in research on American history, especially as regards the state of Kentucky. There are now 2,258 cards in the catalog, derived from the following libraries: Centre College (Danville), Kentucky State Historical Library, Kentucky State Library, Ken-

tucky Wesleyan College, Lexington Public Library, Transylvania College, University of Kentucky. The emphasis is on older newspapers and periodicals.

37. ENOCH PRATT FREE LIBRARY. Union Art Catalog, Department of Fine Arts, Enoch Pratt Free Library, Baltimore, Md.

In charge: Gretta Smith, Librarian.

Subject: Fine arts.

Scope: Baltimore.

The catalog was organized about 1937 by filing within the dictionary catalog of the Department of Fine Arts cards for works not in that library. From 1937 to 1940, approximately 1,200 main-entry cards of this type have been added from the following libraries: Johns Hopkins University, Museum of Art (including Lucas Collection), Goucher College, Maryland Institute, Walters' Art Gallery, Peabody Institute, Maryland Institute Atelier Collection, Friends of Art Collection (Municipal Art Society). A set of main-entry cards for art books is also filed in the public catalog of the library. There is a separate file for sheet music.

Services: Location service by mail, telephone, and upon personal consultation; mechanism for promoting cooperative purchasing, especially in regard to expensive sets and reference works of which one set appears to be sufficient for the city.

38. BOSTON MEDICAL LIBRARY. Union List of Medical Literature, Boston Medical Library, 8 The Fenway, Boston, Mass.

In charge: Dr. James F. Ballard, Director.

Subject: Medical literature.

Scope: Massachusetts.

This union catalog, aiming to embrace all the medical literature found in the more important libraries in the state, was started in 1939. When finished, it may have approximately 500,000 entries, but at present only about 35,000 entries have been filed. The libraries already copied are: Adams Nervine Library (Jamaica Plain), Bedford Veterans Hospital, Beth Israel Hospital (Boston), Boston City Hospital, Boston State Hospital, Boston University Medical Library, Cambridge City Hospital, Chelsea Memorial Hospital, Faulkner Hospital (Jamaica Plain), Fernald School for Feeble Minded (Waltham), Forsyth Dental School (Boston), Free Hospital for Women (Brookline), General Food and Bird's Eye Library (Boston), Glen-side Sanatorium (Boston), Harvard University (Arnold Arboretum, Biological Laboratory, Converse Library, Dental School, Farlow Library, Law School, Medical School, Museum of Comparative Zoology, Peabody Mu-

seum), House of the Good Samaritan (Boston), Jewish Memorial Library (Boston), Long Island Hospital (Boston), McLean Medical Library (Belmont), Massachusetts College of Pharmacy, Massachusetts Department of Public Health, Medical Examiner (Boston), Massachusetts Eye and Ear Infirmary, Massachusetts General Hospital, Massachusetts Horticultural Society, Massachusetts School of Osteopathy, Medford City Library, Metropolitan State Hospital (Waltham), Middlesex County Sanitarium (Waltham), New England Deaconess Hospital, New England Hospital for Women and Children, New England Museum of Natural History, Newton Hospital, Pratt Diagnostic Library, Quincy City Hospital, Radcliffe College, Ring Sanitarium (Arlington), Social Law Library, Somerville City Library, Symmes Arlington Hospital (Arlington), Tufts College (Barnum Museum, Chemical Laboratory, Medical and Dental Library), United Drug Company (Boston), U.S. Marine Hospital (Boston), U.S. Naval Hospital (Boston), Waltham Hospital.

The libraries in process of being copied are: Boston Medical Library, Boston Public Library, Cambridge City Library, Harvard University (Robbins Philosophical Library, Widener Library), Lawrence Memorial Hospital (Medford), Massachusetts General Hospital Psychiatric Department, Massachusetts Institute of Technology, Mental Hygiene Library (Boston), Simmons College (including Social Service Library); and the following seven libraries may be included later: Boston College, Malden Hospital, Massachusetts State Library, St. Elizabeth's Hospital (Brighton), Tewkesbury State Hospital, Waltham Baby Hospital, Wellesley College.

Services: Not yet developed.

References: "Union Shelf List of Medical Literature," *Wilson Bulletin*, XIII (1939), 403.

39. DETROIT PUBLIC LIBRARY. Union List of Serials for Metropolitan Detroit, Detroit Public Library, Detroit, Mich.

Subject: Periodicals.

Scope: City of Detroit.

The purpose of this catalog is, first, to prepare copy for a proposed published union list of serials in Detroit and, secondly, to maintain an up-to-date card file of this information and any changes and additions as they may occur. The catalog was started in 1940 with aid from the WPA and is still in process of compilation. Approximately 30,000 cards have been copied from the following libraries: Children's Fund, Chrysler Corporation, Cranbrook Institute, Detroit Bar, Detroit Board of Commerce, Detroit Board of Education, Detroit Bureau of Government Research, Detroit Edison Co., Detroit Institute of Arts, Detroit Institute of Technology, Detroit

News, Detroit Public Library (Burton Historical Collection, Downtown Library, Medical Science Library), Difco Laboratory, Dow Chemical Co., Duns-Scotus College, Ford Motor Co., Frederick Stearns Co., General Motors, Grace Hospital, Grosse Pointe Public Library, Harper Hospital, Hamtramck Public Library, Lawrence Institute, McGregor Public Library, Marygrove College, Merrill-Palmer Co., National Bank of Detroit, Parke Davis and Co., University of Detroit (including School of Dentistry and School of Law), Walsh Institute, Wayne University.

40. NEW HAMPSHIRE STATE LIBRARY. Union List of Books in Foreign Languages, New Hampshire State Library, Concord, N.H.

In charge: State Librarian.

Subject: Works in foreign languages.

Scope: New Hampshire.

This catalog was started in 1933, and attempts to list all works in foreign languages in the public libraries of the state. A list of these libraries will be found under No.8, in Part II of this *Directory*. There are approximately 12,000 cards in this file, arranged first by language and then alphabetically by name of author.

Services: Chiefly "to enable local libraries easily to borrow books in foreign language for readers who have 'read out' local collections."

41. NEW HAMPSHIRE STATE LIBRARY. Union List of Music Available for Borrowing, New Hampshire State Library, Concord, N.H.

In charge: State Librarian.

Subject: Sheet music.

Scope: New Hampshire.

The catalog consists of fully cataloged items of music available in various libraries, public and private, which may be borrowed under the auspices of the State Library. "Trashy or ephemeral music" is excluded. The total number of sources, libraries and individuals, is 166. Among these, the following libraries are included: New Hampshire State Library, Colby Junior College, and the public libraries of Keene, Franklin, Claremont, Dover, Nashua, Manchester, Concord. There are approximately 64,100 cards arranged in a dictionary catalog by composer, title, and kind or type of music. The compilation of the catalog was begun in November 1935, with the assistance of the WPA.

Services: Locates music for borrowing.

References: Whittier, Ruth E. "A Share-the-Music Program," *Music Clubs Magazine*, XV (March-April 1936), No.4; Whittier, Ruth E. "Sharing

Music in New Hampshire," *Music Clubs Magazine*, XVIII (September-October 1938), No.1.

42. MONTCLAIR FREE PUBLIC LIBRARY. Union Catalog of Magazines, Free Public Library, Montclair, N.J.

In charge: Margery C. Quigley, Librarian.

Subject: Magazines.

Scope: Montclair.

The Free Public Library maintains a union catalog of magazines available in Montclair libraries. Complete holdings are indicated for magazines in the following libraries: Bellevue Avenue Branch, Bradford School, Council of Social Agencies, Edgemont School, George Inness School, George Washington School, George Washington School Branch, Glenfield School, Grove Street Branch, Grove Street School, Hillside School, Montclair Art Museum, Montclair Bureau of Streets, Montclair Engineering Department, Montclair Free Public Library, Montclair Law Department, Montclair Park Department, Montclair State Teachers College and High School, Montclair Town Planning Board, Mt. Hebron School, Mountainside Hospital, Nishuane Branch, Northeast School, Rand School, Senior High School, Spaulding School, Watchung Branch, Watchung School.

There are no data on the number of entries in the catalog.

Services: Complete location service by mail, telephone, and upon personal application.

43. MUSIC LIBRARY (New York Public Library). Dance Index, Music Library of the New York Public Library, 121 East 58th Street, New York, N.Y.

In charge: Dorothy Lawton, Librarian.

Subject: The dance.

Scope: New York City.

This index was started in 1934, and is now in its final form. It is "an annotated index, in bibliographical form, of dance references, composed of source material extracted from various works on anthropology, ethnology, comparative religion, travel, and the arts, contained in institutional libraries of Greater New York." Although books on the dance were investigated, "the main and unique purpose was to gather references from other than dance books." The index contains 2,325 main-entry cards. In addition, a *Source File* includes serial cards listing the serials searched. This forms the basis for approximately 75,000 annotated subject cards, index cards, cross references, etc. The libraries included are: American Geographical Society,

American Museum of Natural History, Columbia University, Cooper Union Museum, General Theological Seminary, Metropolitan Museum of Art, Missionary Research Library, Union Theological Seminary, New York Public Library (Reference Division, Music Library, 58th Street and 135th Street Branches).

Services: Not open to the public, but may be consulted through the library staff. The index has been used by scholars and writers for bibliographical purposes on specific phases of the dance.

44. COLUMBIA UNIVERSITY. AVERY LIBRARY. Union Catalog of Art Books, Avery Library, Columbia University, New York, N.Y.

In charge: Talbot Hamlin, Librarian.

Subject: Fine arts.

Scope: New York City.

This union catalog was started about 1934 by the simple method of cutting up and pasting on cards entries from current accessions lists of various art libraries. It was and still is largely a union catalog of New York City libraries, but a few outside art libraries have also been included recently, so that it is now becoming in a sense almost national in scope. Since the catalog is based on accessions lists, it does not cover material in the libraries before 1934. It now consists of approximately 20,000 cards from the following libraries: Avery Library (Columbia), New York Public Library Art Department, Pierpont Morgan, Frick Museum, Metropolitan Museum of Art, Cooper Union, Museum of Modern Art, New York University Architectural Library, Brooklyn Museum of Art, Pratt Institute, Harvard University, and Art Institute of Chicago.

Services: Complete reference service on art subjects.

45. OKLAHOMA LIBRARY COMMISSION. Union Catalog of Books about Oklahoma, State Capitol, Oklahoma City, Okla.

In charge: Mrs. J. R. Dale, Secretary of the Commission.

Subject: Oklahomiana.

Scope: Oklahoma.

Catalog was organized in 1933, and includes records of about 12,000 books. All public, college and private collections in Oklahoma are included. They are: *Public libraries:* Altus, Alva, Anadarko, Ardmore, Barnsdall, Bartlesville, Blackwell, Bristow, Broken Arrow, Cherokee, Chickasha, Claremore, Clinton, Collinsville, Cordell, Cushing, Drumright, Duncan, Durant, El Reno, Elk City, Enid, Erick, Fairfax, Fairview, Frederick, Guthrie, Guymon, Heavener, Henryetta, Hobart, Holdenville, Hominy, Hooker, Hugo,

Kingfisher, Lawton, Leedy, McAlester, Madill, Mangum, Miami, Morris, Muskogee, Newkirk, Norman, Nowata, Okemah, Oklahoma City, Okmulgee, Pauls Valley, Pawhuska, Perry, Ponca City, Poteau, Ringling, Sand Springs, Sapulpa, Sayre, Seminole, Shawnee, Stillwater, Tahlequah, Tonkawa, Tulsa, Vinita, Wagoner, Walters, Watonga, Wewoka, Wilson, Woodward, Yale; *College and university libraries*: Bacone College, Bethany-Peniel College, Cameron State Agricultural College, Catholic College of Oklahoma for Women, Central State Teachers College, Connors School af Agriculture, East Central State Teachers College, Eastern Oklahoma College, Murray State School of Agriculture, Northeastern Oklahoma Junior College, Northeastern State Teachers College, Northwestern State Teachers College, Oklahoma A. & M. College, Oklahoma Baptist University, Oklahoma City University, Oklahoma College for Women, Oklahoma Presbyterian College, Panhandle A. & M. College, Phillips University, St. Gregory's College, Southeastern State Teachers College, Southwestern State Teachers College, University of Oklahoma (including the Phillips Collection), University of Tulsa (including the Alice Robertson Collection), University Preparatory School and Junior College; *Private collections*: three private libraries; *Special libraries*: Oklahoma Library Commission, Oklahoma Historical Society, U.S. Field Artillery School at Fort Sill.

Catalog includes all cataloged material about Oklahoma in the libraries represented until April 1934. Additions since then have been sporadic. *Services*: Answers inquiries by mail, telephone, and upon personal application.

References: Oklahoma Library Commission. "Serving a Reading Public and How It Is Done," *Biennial Report*, 1934-36 (Oklahoma: Oklahoma Library Commission, 1937).

46. UNIVERSITY OF TULSA LIBRARY. Tulsa Union Art Catalog, University of Tulsa Library, Tulsa, Okla.

In charge: Miss Leta Sowder, Librarian; Mrs. Hugo Brown, Cataloger.

Subject: Fine arts.

Scope: Tulsa.

The union catalog was started with aid of the WPA in 1938 and at present contains approximately 3,850 main-entry cards from the following four libraries: University of Tulsa, Tulsa Public Library, Philbrook Art Museum, and Tulsa Teachers' Library.

Services: Clearing house on art works.

47. PHILADELPHIA MUSEUM OF ART. Art Union Catalog, Library of the Philadelphia Museum of Art, Benjamin Franklin Parkway & 25th Street, Philadelphia, Pa.

In charge: Paul Vanderbilt, Librarian.

Subject: Fine arts.

Scope: Philadelphia and vicinity.

This union catalog was started in 1933 and the compilation went on to the end of 1937. It is unique in that the intention was not to record main entries, but rather to add entries under subject headings to the library's subject catalog. Approximately 60,000 slips were copied, but after elimination of already available works in the Museum library, only about 20,000 cards were added to the subject catalog. The libraries represented were: Philadelphia Museum of Art (Wilstach Collection, John G. Johnson Collection, Rodin Museum, and School of Industrial Art), Philadelphia Free Library, Yarnall Library (St. Clement's Church), Divinity School (Protestant Episcopal Church), Dropsie College, Franklin Institute, Bryn Mawr College, German Society of Pennsylvania, Historical Society of Pennsylvania, University of Pennsylvania (including Fine Arts Library and University Museum), Library Company of Philadelphia, Mercantile Library, Drexel Institute.

Since 1939, Mr. Vanderbilt has been gradually replacing these cards by loose-leaf subject bibliographies on various specific art subjects. These bibliographies are checked for locations at the Union Library Catalogue and, consequently, the original card file is gradually becoming obsolete.

Services: The Library of the Philadelphia Museum of Art is in fact a bibliographical center on art subjects, not only in regard to the resources of the city, but also to a large extent of all art bibliography. It must be stated, however, that the high degree of bibliographical excellence in service is due more to the librarian than to the facilities of the library itself.

48. CHARLESTON COLLEGE LIBRARY. Union Catalog of Periodicals, Charleston College Library, Charleston, S.C.

In charge: J. H. Easterby, Director of the Library.

Subject: Periodicals.

Scope: Charleston.

The catalog was organized in 1937. The original entries were obtained by checking Lyle's *Periodicals for the college library* with the holdings of eight local libraries. The catalog now contains over 1,700 main entries from the following libraries: Charleston Library Society, College of Charleston, Charleston Free Library, The Citadel (Military College of South Carolina), Medical College of South Carolina, Carolina Art Association, Historical Commission of Charleston, and Charleston Museum.

Services: Complete location service.

49. PRESBYTERIAN COLLEGE LIBRARY. Union Catalog of South Caroliniana, Presbyterian College Library, Clinton, S.C.

In charge: Willard L. Jones, Librarian.

Subject: South Caroliniana.

Scope: South Carolina.

This union catalog, started about 1937, is still a personal project of the librarian and has not progressed as far as might be expected. There is no information as to the number of entries, but the following libraries have been at least partly covered: Clemson College, Columbia Theological Seminary, Erskine College, Furman University, Lander College, Library of Congress, Presbyterian College, University of South Carolina, and the public libraries of Edgefield, Greenville, Greenwood, Richland County, and Union.

50. UNIVERSITY OF TEXAS LIBRARY. Union Catalog of Texas and Southwest History, University of Texas Library, Austin, Texas.

In charge: E. W. Winkler, Bibliographer.

Subject: Texas and Southwest history.

Scope: Texas.

This union catalog was organized in 1921 to aid scholars and students doing research in the history and culture of the Southwest. It now contains approximately 8000 cards from the following libraries: Baylor University, East Texas State Teachers College, Southern Methodist University, Southwest Texas State Teachers College, Southwestern Baptist Theological Seminary, Stephen F. Austin State Teachers College, Texas State College for Women, Texas State Library, Texas Technological College, and the public libraries of Dallas, Houston, Paris, San Antonio, and Waco.

In a letter, dated June 20, 1939, Mr. E. W. Winkler, the Bibliographer, writes: "Through the Imprint Survey now being conducted in this state by the Historical Records Survey, we hope to acquire (1) additional cards for the Union Catalog of Texiana, (2) a set of cards for Texas titles arranged chronologically by year of imprint, and (3) a set of cards to be arranged by place of printing."

51. UNIVERSITY OF WASHINGTON LIBRARY. Union Catalog of Pacific Northwest Americana, University of Washington Library, Seattle, Wash.

In charge: Ronald Todd; Miss Maud Moseley, Catalog Librarian.

Subject: Pacific Northwest.

Scope: Pacific Northwest, i.e., Washington, Oregon, Idaho, Montana, British Columbia, Alaska, Yukon.

Catalog organized in 1936. Holdings number approximately 44,000. The 34 libraries included are: *British Columbia*: Provincial Library and Archives, University of British Columbia, Vancouver and Victoria Public Libraries; *Idaho*: public libraries of Boise, Idaho Falls, Pocatello and Twin Falls, University of Idaho, University of Idaho Southern Branch; *Montana*: Historical Society of Montana, Montana School of Mines, Montana State College, Montana State University; *Oregon*: Library Association of Portland, Oregon Historical Society, Oregon State College, Oregon State Library, Reed College, Salem Public Library, University of Oregon, Willamette University, Pacific University; *Washington*: public libraries of Aberdeen, Everett, Seattle, Spokane, Tacoma, and Walla Walla, Washington State College, Washington State Library, University of Washington, Whitman College, College of Puget Sound.

Main entries based on Smith, Charles W., *Pacific Northwest Americana*, (N.Y., H. W. Wilson co., 1921). Catalog excludes newspapers, manuscripts, federal, state and city documents, unless devoted to some definite regional historical subject.

Services: Answers inquiries by telephone, mail, and upon personal application; checks Library of Congress weekly search lists; supplies bibliographical and cataloging advice; maintains photographic service.

References: Articles in *PNLA Quarterly*, II, No.1 (October 1937), 9-10, 28-29; III, No.1 (October 1938), 11; Smith, Charles W., *Union Catalog of Books and Pamphlets Relating to the Pacific Northwest*. University of Seattle, 1936. 3L. (Mimeographed.)

52. UNIVERSITY OF WISCONSIN EXTENSION DIVISION. Union Catalog of Mathematics, Extension Division, University of Wisconsin, 623 West State Street, Milwaukee, Wis.

Subject: Mathematics.

Scope: Milwaukee County, Wisconsin.

The catalog was begun in 1938 with the assistance of a WPA project, and covers all phases of advanced mathematics. Elementary school texts are excluded. It now contains approximately 1,100 individual titles located in the following libraries: Downer College, Marquette University, Mount Mary College, State Teachers College (Milwaukee), University of Wisconsin Extension Division, Milwaukee Public Library.

V. EXCHANGE CATALOGS

53. ENOCH PRATT FREE LIBRARY, Baltimore, Md.

In the public catalog of the Library a single card is filed for each title in the Peabody Institute Library if not already in the Enoch Pratt Library.

It is estimated that approximately 40,000 cards have been thus added, and the annual additions are from 1500 to 2000 cards.

54. MONTCLAIR FREE PUBLIC LIBRARY, Montclair, N.J.

A complete set of all catalog cards of the Montclair Museum of Art Library are filed in the dictionary catalog of the Free Public Library. The total number of such cards is not known, but an average of 100 per year is added to the catalog.

55. BROOKLYN MUSEUM LIBRARY, Eastern Parkway, Brooklyn, N.Y.

Cards for all art books in the Brooklyn Public Library are contributed to this exchange catalog. The mutual exchange of cards began in March 1941, and there are now about 6000 cards in the catalog. An author catalog showing the holdings of the Brooklyn Public Library and the Brooklyn Museum in the fine arts field is thus available at both libraries.

55A. BROOKLYN PUBLIC LIBRARY, Grand Army Plaza, Brooklyn, N.Y.

Cards from the Brooklyn Museum Library. See No.55.

56. DUKE UNIVERSITY LIBRARY, Durham, N.C.

A complete set of main-entry cards from the University of North Carolina Library is kept in a separate file in the Catalog Department. The cards were dexigraphed in 1934, and since then new accessions have been added regularly. Cooperation between the two libraries is close, and the catalog is used extensively both for arranging interlibrary loans and for the elimination of duplication in new book purchases.

57. PORTLAND LIBRARY ASSOCIATION, Portland, Ore.

Author cards from the Reed College Library are filed regularly in the main catalog of the Library Association for all books and periodicals not found in that library.

58. BRYN MAWR COLLEGE LIBRARY, Bryn Mawr, Pa.

A complete set of Haverford College Library's main-entry cards were copied from the film records originally made for the Union Library Catalogue, and interfiled in Bryn Mawr's dictionary catalog in 1937. Since then Haverford has regularly sent cards for its annual accessions to Bryn Mawr.

VI. LIBRARY OF CONGRESS DEPOSITORY CATALOGS

A. *Regional Union Catalogs*

59. CALIFORNIA STATE LIBRARY. State Union Catalog, State Library, Sacramento, Calif.

A Library of Congress Depository Catalog forms the basis of this union catalog. For other libraries in the catalog see No.4.

60. BIBLIOGRAPHICAL CENTER FOR RESEARCH, ROCKY MOUNTAIN REGION.
Public Library, Denver, Colo.

A Library of Congress Depository Catalog is interfiled with the union catalog of the Center. For other libraries in the catalog see No.5.

61. BROWN UNIVERSITY LIBRARY. Union Catalog of Providence Libraries,
Brown University Library, Providence, R.I.

A Library of Congress Depository Catalog is interfiled with the Union Catalog of Providence Libraries. For other libraries in the catalog see No.17.

62. UNIVERSITY OF WASHINGTON LIBRARY. Pacific Northwest Bibliographic
Center, University of Washington Library, Seattle, Wash.

A set of cards of the Library of Congress Depository Catalog forms the basis of the union catalog of this Bibliographic Center. For other libraries in the catalog see No.20.

B. *Expanded Library of Congress Depository Catalogs*

63. UNIVERSITY OF CALIFORNIA LIBRARY, Berkeley, Calif.

Cards from the following libraries have been interfiled with the Library of Congress Depository Catalog: *Universities*: Chicago, Harvard, Illinois, Michigan, Queen's (Ontario), Stanford, and Wesleyan; *Miscellaneous*: American Library Association, Berlin—Preussische Staatsbibliothek (no cards received since the World War), John Crerar, Newberry, University Microfilms, Vatican Library, William Andrews Clark Memorial Library. The Depository Catalog was obtained in 1912 and now contains approximately 2,405,000 cards.

64. STANFORD UNIVERSITY LIBRARY, Palo Alto, Calif.

This catalog consists of Library of Congress proof sheets cut to card size. Additional cards have been filed from Harvard, Chicago, and British Museum (additions, not current). Not yet interfiled, but in a separate alphabet, are cards from Chicago (current), Michigan, and Wesleyan. There are also sets of Folger and University Microfilms cards kept in the Rare Book Room.

65. CONNECTICUT STATE LIBRARY, Hartford, Conn.

This Depository Catalog consists of approximately 1,909,200 cards with additions from the following libraries: Harvard, John Crerar (only entries relating to Connecticut), Wesleyan; and a separate file of U.S. Department of Agriculture cards (subscription discontinued in 1936).

66. YALE UNIVERSITY LIBRARY, New Haven, Conn.

The Depository Catalog at Yale was obtained in 1907, and now contains approximately 2,000,000 cards. It has been augmented by cards from: Chi-

cago, Folger, Harvard, John Crerar, Michigan, Newberry, Queen's University, Vatican, Wesleyan, and cards for German dissertations.

67. JOHN CRERAR LIBRARY, 86 East Randolph Street, Chicago, Ill.

The Depository Catalog was obtained about 1901 and is among the earliest developed into a union catalog. It now contains over 3,170,000 cards with the following libraries added: John Crerar, Illinois, Chicago, Michigan, Princeton, and the Preussische Staatsbibliothek (up to the World War).

68. NEWBERRY LIBRARY, 60 West Walton Street, Chicago, Ill.

The catalog was started in 1910 and consists of Library of Congress proof sheets cut to card size, into which are interfiled cards from: Harvard, Chicago, Michigan, and Wesleyan. It is somewhat selective in that only the humanities are included. The total number of cards in 1940 was estimated at 1,400,000.

69. UNIVERSITY OF CHICAGO LIBRARY, Chicago, Ill.

The official catalog of the University of Chicago Libraries is now in process of being combined with the Depository Catalog. The total number of cards is approximately 4,452,800, of which about 2,000,000 belong to the expanded depository catalog. The libraries included are: Harvard, Illinois, Michigan, John Crerar, Newberry, and California (only a few cards).

70. NORTHWESTERN UNIVERSITY LIBRARY, Evanston, Ill.

The Depository Catalog was obtained in 1910, and has been amplified by the inclusion of cards from the following libraries: John Crerar, Harvard, Chicago, Newberry, Illinois, Michigan, Folger, Vatican, Berlin—Preussische Staatsbibliothek, and the Institut International de Bibliographie. The total number of cards is well over 2,000,000, and the yearly increase is about 73,000 cards.

71. UNIVERSITY OF ILLINOIS LIBRARY, Urbana, Ill.

This is one of the most important Library of Congress Depository-Union Catalogs in the country. It was started in 1910 and has grown to over 3,000,000 cards from 23 libraries. It includes cards from: Folger, 1931- ; Harvard, 1911-31; Illinois State Historical Library, 1935- ; Institut International de Bibliographie, 1910?-15?; John Crerar, 1898- ; Louisiana State University, 1939- ; Newberry, 1901- ; Preussische Staatsbibliothek, 1912-15?; Princeton, 1933- ; Queen's University, 1924-31; St. Louis Public Library, 1916- ; Stanford; State University of Iowa, 1934- ; California, 1914?-16; Chicago, 1913?- ; Illinois, 1912- ; University of Illinois Medical, Dental and Pharmacy Schools, 1937- ; Michigan, 1912- ; Minnesota, 1934- ; Texas, 1937- ; Vatican, 1931- ; and Wesleyan, 1934- .

72. IOWA STATE COLLEGE OF AGRICULTURE AND MECHANIC ARTS LIBRARY,
Ames, Iowa.

Cards from the State University of Iowa are interfiled with the Depository Catalog.

73. STATE UNIVERSITY OF IOWA LIBRARY, Iowa City, Iowa.

The Depository Catalog was obtained in 1910 and now contains about 2,700,000 cards. Other libraries included are: Michigan, 1925- ; John Crerar, 1920- ; Chicago, 1920- ; Harvard, 1933- ; Princeton, 1933- ; Wesleyan, 1934- ; Illinois, 1931- ; Iowa State College, 1935- ; and Minnesota, 1939- .

74. BOWDOIN COLLEGE LIBRARY, Brunswick, Maine.

Into the Depository Catalog have been filed cards from Harvard and Wesleyan.

75. JOHNS HOPKINS UNIVERSITY LIBRARY, Baltimore, Md.

The Depository Catalog dates from 1902, and Vatican Library cards, interfiled with it, have been received since 1930.

76. HARVARD UNIVERSITY LIBRARY, Cambridge, Mass.

The Depository Catalog was obtained in 1910. It was combined with the University's own author or main-entry catalog, and cards from John Crerar (none filed since 1921 and none received since 1926). Folger cards are regularly added. A few cards have been received from other libraries, and the total catalog now has over 3,700,000 cards.

77. UNIVERSITY OF MICHIGAN LIBRARY, Ann Arbor, Mich.

There were in December 1940 about 4,093,000 cards in the Library's Depository-Union Catalog. Libraries included are: John Crerar, 1897- ; California, 1913-14; Chicago, 1913- ; White Folk-Lore Collection, Cleveland Public Library, 1920- ; Folger, 1937- ; Harvard, 1911-31; Illinois, 1910- ; League of Nations, 1930- ; Michigan, 1925- ; Minnesota, 1935- ; Newberry, 1923- ; Vatican, 1930- ; and Wesleyan, 1934- . In a separate file are cards from Preussische Staatsbibliothek, 1922- ; and British Museum accessions (none filed since about 1930).

78. UNIVERSITY OF MINNESOTA LIBRARY, Minneapolis, Minn.

The Depository Catalog, with additions, contained in December 1940 approximately 2,200,000 cards. Other libraries included are: Harvard, 1921-31; John Crerar, 1912- ; Michigan, 1915- ; Chicago, 1918- ; Illinois, 1934- ; Princeton, 1934- ; Wesleyan, 1934- ; State University of Iowa, 1939- ; Minnesota authority cards, 1907- .

79. ST. LOUIS PUBLIC LIBRARY, Olive, 13th & 14th Streets, St. Louis, Mo.

The Depository Catalog was obtained in 1904 and contained in December 1940, approximately 3,000,000 cards. Other libraries included are: Chicago, John Crerar, Illinois, Michigan, Wesleyan, Harvard, and Queen's University.

80. UNIVERSITY OF NEBRASKA, Lincoln, Neb.

This Depository Catalog was obtained about 1908 and now contains approximately 2,000,000 cards. The following libraries are included: Universities of Chicago and Michigan, Princeton and Harvard (the last for a limited time only).

81. PRINCETON UNIVERSITY LIBRARY, Princeton, N.J.

Princeton obtained a Depository Catalog about 1901, and in February 1941, it had grown to approximately 2,400,000 cards. Other libraries included are: Chicago, Illinois, Iowa, Michigan, Minnesota, Texas, Harvard, Queen's, Wesleyan, Folger, John Crerar, Newberry, and Philadelphia Museum of Art.

82. NEW YORK STATE LIBRARY, Albany, N.Y.

The State Library's Depository-Union Catalog contained in February 1941 approximately 2,290,000 cards. The following libraries are included: John Crerar, Harvard, Chicago, and League of Nations. The catalog was organized in 1911.

83. COLUMBIA UNIVERSITY LIBRARY, New York, N.Y.

The Depository Catalog of Columbia was obtained about 1910 and now contains over 2,000,000 cards. The following libraries are included: Chicago, 1913-15; John Crerar, 1910-21; Harvard, 1911-31; Michigan, 1925- ; Vatican, 1931- ; and Wesleyan, 1934- .

84. SYRACUSE UNIVERSITY LIBRARY, Syracuse, N.Y.

The Depository Catalog at Syracuse has been amplified with the addition of cards from Wesleyan, 1934- , and now contains approximately 1,700,000 cards.

85. UNIVERSITY OF NORTH CAROLINA LIBRARY, Chapel Hill, N.C.

North Carolina's Depository Catalog was obtained in 1925 and numbered in 1940 approximately 1,700,000 cards. Other libraries included are: Harvard, Princeton, Wesleyan, Chicago, John Crerar, and Folger.

86. PUBLIC LIBRARY OF CINCINNATI, Cincinnati, Ohio.

The Depository Catalog was obtained about 1910 and numbered in 1940 approximately 2,300,000 cards. The other libraries included are the Vatican since 1935, Wesleyan since 1934, and a set of Library of Congress cards for bracketed headings since 1932.

87. CLEVELAND PUBLIC LIBRARY, Cleveland, Ohio.

The Depository Catalog at the Cleveland Public Library contained in 1940 about 2,500,000 cards. These include cards from John Crerar, Wesleyan, Harvard (for a limited period only), and Michigan (no longer received).

88. OHIO STATE UNIVERSITY LIBRARY, Columbus, Ohio.

The Depository Catalog is maintained as a separate unit. Cards from Chicago, 1913-15, 1926- ; Michigan, 1925- ; University Microfilms, 1938- , and Wesleyan, 1934- , are filed together. Separate files are maintained for Utrecht University, 1929- ; Concilium Bibliographicum, and Folger, 1939- . Wistar Institute cards, 1930- , are filed in the Library's own dictionary catalog.

89. UNIVERSITY OF PENNSYLVANIA LIBRARY, Philadelphia, Pa.

The Depository Catalog consists of approximately 2,000,000 cards, having been amplified with additions from: John Crerar, 1924- ; Princeton, 1933- ; Chicago, 1924- ; Illinois, 1925- ; Michigan, 1928- ; Harvard, 1924- ; Wesleyan, 1934- ; and Newberry, 1926- . A set of cards from the Vatican Library is maintained in a separate file.

90. UNIVERSITY OF TEXAS LIBRARY, Austin, Texas.

The Depository Catalog was obtained in 1902 and contained in 1940 approximately 2,700,000 cards. The other libraries included, with the dates when their contributions began, are: A.L.A. Cooperative Cataloging Committee, 1938; Deutscher Ausländischer Buchtausch, 1935; Folger, 1937; John Crerar, complete; Illinois, 1937; Michigan, 1926; Newberry, 1926-33, 1935; Princeton, 1939; Vatican Library, 1935. Additional cards on hand but not yet incorporated in the catalog are from Cercle de la Librairie, Paris, 1937-39, and University Microfilms, 1938.

91. UNIVERSITY OF VIRGINIA LIBRARY, Charlottesville, Va.

The Depository Catalog has been expanded by the addition of cards from Folger, the Vatican Library, and cards from British Museum accessions (for entries not already represented by cards from other libraries).

92. VIRGINIA STATE LIBRARY, Richmond, Va.

The Depository Catalog at the State Library is being expanded by the addition of cards from the University of Virginia Library. In 1940 about 7,600 cards were received from that Library, due to current recataloging, but the normal output of cards is not likely to exceed 1000 per year.

C. Unexpanded Library of Congress Depository Catalogs**93. UNIVERSITY OF CALIFORNIA AT LOS ANGELES, Los Angeles, Calif.**

94. LOS ANGELES PUBLIC LIBRARY, Los Angeles, Calif.
95. UNIVERSITY OF SOUTHERN CALIFORNIA, Los Angeles, Calif.
96. WESLEYAN UNIVERSITY, Middletown, Conn.
97. UNIVERSITY OF GEORGIA, Athens, Ga.
98. EMORY UNIVERSITY, Atlanta, Ga.
99. INDIANA STATE LIBRARY, Indianapolis, Ind.
100. KANSAS STATE HISTORICAL SOCIETY, Topeka, Kans.
101. TULANE UNIVERSITY, New Orleans, La.
102. BOSTON PUBLIC LIBRARY, Boston, Mass.
103. AMERICAN ANTIQUARIAN SOCIETY, Worcester, Mass.
104. UNIVERSITY OF MISSOURI, Columbia, Mo.
105. DARTMOUTH COLLEGE, Hanover, N.H.
106. UNIVERSITY OF NEW MEXICO, Albuquerque, N. Mex.
107. BROOKLYN PUBLIC LIBRARY, Brooklyn, N.Y.
108. BUFFALO PUBLIC LIBRARY, Buffalo, N.Y.
109. CORNELL UNIVERSITY, Ithaca, N.Y.
110. NEW YORK PUBLIC LIBRARY, New York, N.Y.
111. UNIVERSITY OF OKLAHOMA, Norman, Okla.
112. FREE LIBRARY OF PHILADELPHIA, Philadelphia, Pa.
113. CARNEGIE LIBRARY OF PITTSBURGH, Pittsburgh, Pa.
114. UNIVERSITY OF TENNESSEE, Knoxville, Tenn.
115. VANDERBILT UNIVERSITY, Nashville, Tenn.
116. SEATTLE PUBLIC LIBRARY, Seattle, Wash.
117. WISCONSIN STATE HISTORICAL SOCIETY, 816 State Street, Madison, Wis.

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INDEX

INDEX

- Academic users of union catalogs, 179-81
Accessibility of locations, 216-17
Accessions, union catalog, 23-26, 308-10
Acquisition fields, division, 167-69, 319-20
Added entries, 253, 305
Administration, union catalog, 11-45, 265-348
A.L.A. Periodical Index, 253
All Russian Book Chamber, Moscow, 254
American Antiquarian Society, 391
American Council on Education, 135
American history, union catalog, 8, 375-76
American Imprints Inventory, 10, 234, 247, 252-
53, 261, 291, 299, 305, 311, 353-54
American Philosophical Association, 169
American Scandinavian Foundation Union cat-
alog, 371
American University Library, 235
Annmary Brown Memorial Library, 5
Anonymous works, 299
Appraisals of book values, 174
Area covered by union catalogs, 269
Art Union Catalog, Chicago, 5, 8, 342-48
Art, union catalogs, 374, 376, 380-82
Association of Research Libraries, 67-71, 257
Atlanta-Athens Union Catalogue, 33, 35, 44,
53, 116, 148, 169, 326-30, 356-57
Author bibliographies, compilation, 165-67
- Berthold, A. B., 5, 129
Bibliographical aids, union catalog, 304-08
Bibliographical center, definition, 129
Bibliographical Center for Research, Rocky
Mountain Region, 11-12, 16, 43-44, 113, 129,
131-32, 135, 137-38, 140-47, 150-61, 163-66,
168-77, 179-99, 202-04, 208-25, 275, 292, 297,
301-02, 306, 312, 313, 315, 318, 339, 355-56,
386
Bibliographical centers, 208-17, 224, 225, 313-20
Bibliographical details, union catalogs, 278,
284-86
Bibliographical form, 284-86
Bibliographical services, 163-67, 220
Bibliographical works supplementing union
catalogs, 209-14, 224
Bibliographies, compilation, 220
Biblioteca Nacional, Caracas, 254
Bibliothèque Nationale, *Catalogue Général*, 85,
254
- Biological Abstracts*, 134
Bishop, W. W., 29
Book purchasing, cooperative, 317-18
Book selection, cooperative, 315-17
Boston Medical Library, Union Catalog, 376-77
Boston Public Library, 391
Bowdoin College Library, 388
British Museum Catalogue, 85, 254
Broken files, completion of, 170
Brooklyn Museum, 385
Brooklyn Public Library, 385, 391
Brown, Charles H., 77
Brown, H. G., 130
Brown, Karl, 7
Brown University Union Catalog, *see* Provi-
dence Union Catalog
Bryn Mawr College Library, 245, 385
Buffalo Public Library, 391
Bureau of Railway Economics, Union Catalog,
369-70
- California State Library Union Catalog, 7, 17,
290, 354-55, 385
California, University of, Library, 7, 386
California, University of (Los Angeles), Library,
390-91
Campion, Eleanor E., 37, 38
Card cabinets, cost, 39
Card reproducing methods, 278-79
Catalog cards, 278
Cataloging, cooperative, 318-19
Cataloging terms, definition, 330-31
Cataloging, union catalog aid in, 164-65, 258
Catalogs and lists incorporated in National
Union Catalog, 236-44
Catholic Church, union catalog, 370-71
Catholic University Library, 235
Census, union catalog, 369
Ceský Katalog Bibliographický, 254
Charleston College, Union Catalog of Periodi-
cals, 382
Chemical Abstracts, 134
Chicago Law Institute, Union Catalog, 375
Chicago Public Library, 89
Chicago, University of, Library, 133, 230, 387
Chicago, University of, Oriental Institute Union
Catalog, 370

- Chicago, University of, Union Catalog of Art Books, 374
 Cincinnati Public Library, 389
 Claremont Colleges Library, 354
 Clements Library, 202
 Cleveland Public Library, 89, 147, 390
 Cleveland Union Catalog, 17, 25, 31, 35, 39, 89, 91-96, 115-16, 131, 135, 137, 140, 143-44, 147, 150, 152-53, 159-60, 165, 167-68, 170-71, 173, 176-77, 187, 189, 191-92, 197, 199-202, 220-21, 223-24, 252, 263, 270, 360-61
 College of Jewish Studies Union Catalog, 374-75
 Colorado College Library, 202
 Colorado State Library, 202
 Colorado, University of, Library, 153, 171, 202
 Columbia University, Avery Library, Union Catalog, 380
 Columbia University Library, 389
 Combining cards, 334-35; cost, 38-39
 Commercial users of union catalogs, 179, 182
 Compilation, union catalog, 277-80, 283-99, 342-48; cost, 31-32, 51-52, 108-25
 Completeness, union catalog, 26-28
 Concilium Bibliographicum, 254
 Connecticut State Library, 386; American Imprints Union Catalog, 371-72
 Cooperation, union catalog, 311
 Cooperative purchasing, 169-70, 221
 Copying procedure, 286-90
 Cornell University Library, 391
 Cost factor, union catalog use, 215-16
 Cost, union catalogs, 29-74
 Dance, union catalog, 8, 379-80
 Dartmouth College Library, 391
 Dates of publication, 187-89
 Deichmanske Bibliothek, Oslo, 254
 Denver Art Museum, 168
 Denver Bibliographical Center, *see* Bibliographical Center for Research, Rocky Mountain Region
 Denver Public Library, 12, 16, 153, 155, 163-64, 168, 170-71, 202
 Denver, University of, Library, 155, 163-64, 166, 168, 170-71
 Detroit Public Library, Union List of Serials, 377-78
Deutscher Gesamtkatalog, 4, 6, 85, 254-55
 Dexigraphing, 41-42; cost, 51-52, 55-56
 Directory of union catalogs, 349-91
 Dissertations, German, 253-54
 Distinctiveness, index to for union catalogs, 94-96
 Distinctiveness of library collections, 74-77
 Distribution of interlibrary loans, 219-20
 District of Columbia libraries, 235-36, 250-51
 Downs, R. B., 246
 Drexel Institute Library, 245
 Duke University Library, 116, 315, 385
 Duo-photo process, 43
 Duplicate cards, 309-10
 Duplicates, distribution, 170-71
 Duplicating union catalog, cost, 53-56
 Duplication in acquisitions, 73-77, 168-69, 221
 Duplication in union catalogs, 90-96
 DuPont de Nemours and Co., Union Catalog, 372
 Editing, union catalog, 121, 295-99, 309; cost, 40-41, 50-51, 53-54
 Electrical facsimile reproduction, 261
 Emory University Library, 53, 169, 391
 Enoch Pratt Free Library, 316, 384-85; Union Art Catalog, 376
 Entries, selection, 326-30
 Equipment, 307-08
 European books in American libraries, 83-89
 Evans, Charles, *American Bibliography*, 253
 Exchange catalogs, 384-85
 Exclusion of material, union catalogs, 26-28
 Fiction in union catalogs, 26-28
 Filing, 234-35, 282, 292-95, 301-09, 332-35; cost, 37-38, 48-50
 Financing, union catalog, 272-73, 280-81, 301
 Floridiana, union catalog, 8, 372-73
 Foreign books in American libraries, 82-89, 254-55
 Foreign literature in union catalogs, 305, 378
 Form, union catalog, 322-23
 Georgia Union Catalog, *see* Atlanta-Athens Union Catalogue
 Georgia, University of, Library, 53, 169, 391
 German Society of Philadelphia, 245
 Governmental users of union catalogs, 179, 182
 Graduate study, value of union catalogs in, 184-35, 171-72
 Growth, union catalog, 308-10
 Guide cards, 298
 Harvard University Library, 58, 74-75, 134, 229, 235-36, 245, 388
 Haskell, D. C., 7
 Haverford College Library, 385
 Headings, establishing, 297-98
 Hempstead (N.Y.) Public Library, 14
 Hirsch, Rudolph, 163-64
 Hirshberg, Herbert S., 252
 Historical Records Survey, 187, 250-53
 Hoover War Library, 245
 Howard University, Union Catalog of the Negro, 368-69
 Illinois, University of, Library, 230, 387
 Inclusiveness, index of, 75-77
 Inclusiveness of union catalogs, 17-23
Incunabula in American Libraries, 4-5
 Indiana State Library, 391

- Individual use of union catalogs, 177-79
 Institute of Medicine, Chicago, Union Catalog, 373-74
 Interlibrary loans, 131-32, 153-63, 219-20, 315; distribution of, 159-63; time required, 153-59
 International bibliography, 86-87
 Iowa State College Library, 388
 Iowa State University Library, 388
 Iwinski, M. B., 78-82
- Jewish literature, union catalog, 9, 374-75
 Joeckel, C. B., 29
 John Crerar Library, 152-53, 229, 387
 Johns Hopkins University Library, 388
 Johnston, William D., 231
 Joint University Libraries, 148
 Josephson, A. G. S., 7
 Juvenile literature in union catalogs, 26-28
- Kansas State Historical Society, 391
 Kentuckiana, union catalog, 375-76
 Kentucky, University of, Union Catalog, 375-76
 Kletsch, Ernest, 231
- Labor cost, union catalog, 32-34
 Langbaine, Gerard, 5
 Law, Chicago Union Catalog, 8-9, 324, 375
 Leningrad State Library, 254
 Libraries, criteria for inclusion in union catalogs, 18-19
 Libraries included in National Union Catalog, 245, 247-51
 Libraries, types in union catalogs, 223-24
 Library catalogs, foreign, 253
 Library Company of Philadelphia, 164, 171, 220
 Library cooperation, 133-36
 Library of Congress cards, 280, 288-89; order numbers, 164, 179
 Library of Congress depository catalogs, 10, 55, 100, 103, 104, 152, 385-91
 Library of Congress Union Catalog, *see* National Union Catalog
 Library of Congress, Union Catalog of Census and Population Materials, 369
 Location services, union catalog, 148-63, 218-20
 Location symbols, 233-34, 290-92, 331-32
 Los Angeles Public Library, 391
 Louisiana State University Library, 53
- McMurtrie, Douglas C., 252
 Maintenance cost, union catalog, 47-48, 51-52, 122
 Mann, Margaret, 36
 Mathematics, union catalog, 384
 Medical portraits, union catalog, 368
 Medicine, union catalogs, 373-74, 376-77
 Michigan, University of, Library, 115, 152, 153, 388
 Microphotography in union catalogs, 34-41, 51-52, 54-56, 136, 153, 250-51
- Microprinting, cost, 55-56
 Minnesota, University of, Library, 388
 Missouri, University of, Library, 391
 Montclair Museum of Art, 385
 Montclair Public Library, 385; Union Catalog of Magazines, 379
 Music, union catalog, 378-79
- Nashville Public Library, 168
 Nashville Union Catalog, 17, 42, 116, 148, 165, 170-71, 189, 221, 274, 315, 335-38, 366
 Nassau County Union Catalog, 7, 14, 27, 29, 91-93, 359
 National bibliography, 83-87
 National Central Library, 6
 National Resources Planning Board, 114-15
 National Union Catalog, 9, 10, 49, 73, 94, 117, 119-21, 123-25, 130-32, 134, 137, 150, 152, 155, 158, 172-73, 187, 189, 192, 215-17, 221-22, 224, 227-63, 291-92, 304, 311, 314, 320, 352-53; compilation cost, 121-25; contributions to, 9; expansion, 58-74, 260-63; history, 229-32; use of, 255-59; weekly search lists, 150, 172-73, 257
- National union catalogs, 352-54
 Nebraska State Library, 205
 Nebraska Union Catalog, 19, 25-27, 31, 36, 39, 91-93, 114, 131, 135, 137, 140-45, 147, 150, 152, 159-60, 164, 167, 170, 173, 176-77, 187, 199, 204-06, 222, 224, 292, 357
 Nebraska, University of, Library, 89, 389
 Negro, union catalog, 368-69, 375
 New Hampshire Union Catalog, 106, 118, 357-58
 New Hampshire Union List of Foreign Books, 378; Union List of Music, 378-79
 New Jersey Union Catalog, 17, 117, 358-59
 New Mexico, University of, Library, 391
 New York Libraries Union Catalog, 262
 New York Public Library, 74-5, 229, 235, 255, 391; Dance index, 379-80
 New York State Library, 389
 Newberry Library, 230, 387
 North Carolina Union Catalog, 17, 42, 116, 360
 North Carolina, University of, Library, 116, 245, 315, 385, 389
 Northwestern University Library, 387
- Odum, H. W., 97, 100, 101, 107, 112-17
 Ohio State University Library, 89, 390
 Ohio Union Catalog, Columbus, 17-18, 25, 27-28, 35, 91, 115-16, 131, 135, 137, 140-47, 150, 152, 159, 164-65, 167-68, 170, 173, 176-77, 187, 189, 191-92, 197, 199, 206, 220, 222-24, 290, 361-62
 Oklahoma Union Catalog, 380-81
 Oklahoma, University of, Library, 391
 Oklahomiana, union catalog, 380-81
 Order work, use of union catalogs in, 174
 Oregon State System of Higher Education, 317-18

- Oregon Union Catalog, 7, 17, 25, 106, 270, 274, 362
 Organization, union catalog, 11-45, 274-82
 Orientalia, union catalog, 370
- Pacific Northwest Americana, Union Catalog, 8, 383-84
 Pacific Northwest Bibliographic Center and Union Catalog, 16, 38, 42-43, 105-07, 112, 148, 313, 367-68
 Pan American Union, 236, 245
 Patrons, union catalog, 176-86, 222-23
 Peabody College Library, 168
 Peabody Institute, Baltimore, 384
 Pennsylvania State College Library, 165
 Pennsylvania State Library, 165
 Pennsylvania, University of, Library, 13, 130, 169, 390
 Periodicals, union catalog listing, 285-86, 296
 Peterson, Frank, 233-34
 Philadelphia Academy of Fine Arts, 165
 Philadelphia Bibliographical Planning Committee, 13
 Philadelphia Free Library, 391
 Philadelphia Museum of Art, 141, 169, 179; Union Catalog, 381-82
 Philadelphia Union Catalog, *see* Union Library Catalogue of the Philadelphia Metropolitan Area
 Photographic reproduction, 279
 Pittsburgh, Carnegie Library, 391
 Population materials, union catalog, 369
 Portland Library Association, 385
 Presbyterian College, Union Catalog, 383
 Princeton University Library, 235, 236, 245, 389
 Printing cost, 55-56
 Project "B," Library of Congress, 231, 233-46
 Proofreading, cost, 36-37
 Providence Union Catalog, 9, 28, 118, 125, 247, 251, 311, 365-66, 386
 Prussian Union Catalog, 6
 Publicity, 311-12
Publishers' Weekly, 78-82
 Purposes of union catalog use, 222-23
- Railway economics, union catalog, 369-70
 Range of services, union catalogs, 147-75, 218
 Rare books, location, 152
 Reed College Library, 385
 Reference service, bibliographical centers, 174
 Regional development, union catalogs, 97-125, 220-21
 Regional storage centers, 171
 Regional union catalogs, 354-68; relation to National Union Catalog, 260-61
 Regionalism, definition, 97-99
 Regions of United States, 107-19
 Report forms, 338-39
 Reproduction of rare books, 153
 Research, union catalogs in, 172
 Resources of libraries, 18, 58-96, 102, 124, 270-72
 Richardson, E. C., 231, 236, 245
 Rider, Fremont, 50, 184
 Rockefeller, John D., Jr., 231
 Rollins College Union Catalog, 372-73
 Royal Library, Hague, 254
 Rules, union catalog, 335-38
 Russian corporate entries, 165
- St. Benedict's College Union Catalog, 370-71
 St. Louis Public Library, 388-89
 Scandinavian Union Catalog, 371
 Scarritt College Library, 168
 Schneider, Georg, 78-82
Science Abstracts, 134
 Seattle Public Library, 391
 Selection of entries, 283-84
 Selection of libraries for union catalogs, 17-23, 276-77
 Semitic literature, 234-35
 Serials, listing of, 170, 189-91, 305, 336-38
 Serials, union catalogs, 372, 379, 382
 Services, union catalog, 137-75, 268
 Size of libraries in relation to union catalog contributions, 207
 Slavic titles, 234-35
 Smithsonian Institution, 235
 Social sciences, library holdings, 85-86
 Sole locations in union catalogs, 199-206
 South Caroliniana, union catalog, 383
 Southern California, University of, Library, 391
 Southwest history, union catalog, 8, 383
 Special collections, American libraries, 231, 245-46, 314, 341-42
 Specialization of collections, 167-69, 319-20
 Sponsors, union catalogs, 14-17, 274-75, 301
 Staff, union catalog, 14-15, 32-34, 281-82, 300, 302-04, 321-22
 Stamping library symbols, 37
 Stanford University Library, 7, 386
 Statistics, union catalog, 306-07
 Subject bibliography, 88-89, 165-67, 209, 220, 314
 Subject union catalogs, 313-15, 323-25, 368-84
 Subject use of union catalogs, 192-98
 Supervisory costs, 33-34
 Swarthmore College Library, 89, 169
 Symbols, location, 233-34, 290-92, 331-32
 Syracuse University Library, 389
- Tauber, Maurice, 47
 Telephone service, union catalogs, 177-79, 215
 Tennessee State Library, 168
 Tennessee, University of, Library, 391
 Texas history, union catalog, 383
 Texas, University of, 135, 390; union catalog, 8, 383
 Time factor in union catalog use, 215-16
 Titles in American libraries, 59-77, 89-90, 230

- Transliterations, 299
Tulane University Library, 53, 391
Tulsa, University, Union Art Catalog, 381
Types of material requested, 187-98
Typing, 282, 287; cost, 56; from microfilm, 36-37
- Union catalog, definition, 3-5, 129-30
Union catalogs, European, 5-6
Union catalogs, history, 5-10
Union Library Catalogue of the Philadelphia Metropolitan Area, 9, 12-13, 16, 19-26, 31, 33, 35-36, 40, 47, 49-50, 53-54, 90-96, 125, 135, 137, 140-41, 147-48, 150, 153, 160, 164-67, 171-74, 176-77, 179, 187, 189, 191, 199, 206, 208, 216, 220-22, 224, 247, 251-52, 263, 275, 281, 288, 290, 297-98, 302, 304, 311-15, 330-35, 338-42, 362-65
Union List of Serials, 7, 155, 161, 191, 214, 292, 306; cost, 44-46
Union lists, 6-7, 214; comparison with union catalogs, 44-46; definition, 4-5
Union Theological Seminary Library, 245
Unique titles, 19-23, 90-93; in British libraries, 92-93
Unit cost, union catalog cards, 48
U.S. Army Medical Library, Union Catalog of Medical Portraits, 368
United States Catalog, 214
U.S. Copyright Office, 78
Users of union catalogs, 222-23, 269-70
Uses of union catalog material, 182-86
- Vanderbilt, Paul, 53-54
- Vanderbilt University, 168, 391
Vatican Library, 254
Vermont Union Catalog, 106, 291, 366-67
Virginia State Library, 390
Virginia, University of, Library, 117, 390
Volume of service, union catalog, 137-46, 218
Volumes, number in libraries, 107-22; in research libraries, 118-19
- Waples, Douglas, 85
Washington, University of, Library, 16, 208, 383-84, 386
Wesleyan University Library, 391
Westchester County Union Catalog, 13, 14, 16, 31, 91-93, 275, 301, 359-60
Western Reserve University Library, 147, 150, 153, 169, 202
Wilson, L. R., 100-02, 111-12, 144-45, 270
Wisconsin State Historical Society, 391
Wisconsin, University of, Union Catalog, 384
Wistar Institute, 254
Withdrawals, 310
World book production, 77-82
World book resources in American libraries, 82-89
WPA aid to union catalogs, 8, 12, 32, 34, 38, 39, 42-43, 125, 135-36, 208, 250-53, 262, 281-82, 302, 322
Wright, Wyllis E., 45
Wyoming Historical Library, 202
- Yale University Library, 386-87

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